PHILADELPHIA, DECEMBER 30, 1882.

ORIGINAL LECTURES.

CLINICAL LECTURE

ON A CASE OF CIRRHOSIS OF THE LIVER.

Delivered at the Philadelphia Hospital, October 28, 1882,

BY JAMES TYSON, M.D.,

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Reported by DAN. W. NEAD, M.D.

GENTLEMEN,—I have recently been showing you some cases of disease of the liver, and to-day I bring before you another of the same class. Our patient is 38 years old, is a tin-roofer by trade, and was admitted to the house September 27. He had always been healthy, but for the last four or five years has been what might be called a hard drinker, frequently going on sprees. For six weeks previous to his admission he had been drinking steadily. On the morning of the day on which he was admitted, he had a very profuse hemorrhage from the nose, and that night he had a second hemorrhage, which was checked only by packing the nostril with tannic acid. He also had some nausea and loss of appetite. The second day after his admission (September 29) he noticed his limbs were swelling, but an examination of his urine revealed nothing abnormal. About the same time his abdomen began to enlarge. You can all see to what extent this enlargement has taken place, and by placing my hand on one side of the abdomen, and gently tapping the other side, I get distinct fluctuation, showing conclusively the presence of fluid. Now, what conditions will cause the presence of fluid in the abdominal cavity? First, we have obstructive disease of the heart, which, by overloading the venous system, causes the watery elements of the blood to exude through the walls of the vessels. An examination of this man's heart fails to reveal any lesion: so we can exclude this. In the second place, it may be caused by renal disease. But if there be any disorder of the kidney of sufficient gravity to produce the amount of ascites present in this man, it would undoubtedly produce albuminuria; and we have failed to find any albumen in this man's urine. Excluding these two, then, narrows it down to the third,—*i.e.*, some interference with the portal circulation. Let us examine the liver and see if we can detect any alteration in it.

Having the patient on his back, percussing in the mammillary line, we find that dulness begins at the fifth rib and extends to the edge of the ribs. In the line of the ensiform cartilage there is tympany all the way from it to the umbilicus. In the mid-axillary line, dulness begins at the seventh interspace, and passes without interruption into the dulness occasioned by the ascites. In percussing the liver you will find it to be more easily mapped out by having the patient lie on the left side and draw up his thighs towards his abdomen; and I will now percuss him in that position. Going back to the mammillary line, we find dulness begins at the sixth rib and is replaced by tympany at the eighth rib. In the mid-axillary line dulness begins at the seventh rib and is replaced by tympany at the tenth rib. Posteriorly, dulness begins with the tenth rib and merges into that of the lumbar muscles. By this examination you perceive the liver is smaller than normal.

Now, what diseases are there in which the liver is smaller than in health? I can recall but one,—cirrhosis, or interstitial hepatitis. Let us now take up this man's symptoms, and see wherein they accord with the phenomena of this affection. The first thing that he noticed was the hemorrhage from the nose, and I called your attention to this symptom. What was the cause of it? It was entirely mechanical. The blocking up of the portal system causes engorgement of the veins all over the body, and the hemorrhage from the nose was simply an effort of nature to relieve the engorgement. Hemorrhage into the stomach and intestines is a more frequent symptom, and is even more directly accounted for. Next there is the ascites. We have already seen that the liver is smaller than normal, and this contraction must necessarily compress the vessels which pass through its substance. As a result of this, the current of the blood is retarded, and the serum exudes through the vessel-walls, producing the ascites.

Let us for a few moments consider the etiology of the disease. It is an error to regard the use of alcohol as the only cause of cirrhosis. In the vast majority of cases it doubtless is the cause; but I have seen

cirrhosis in children two or three years of age and in young men of twenty; and Dr. Harley, in his recent work on the liver, refers to such cases (p. 307). The use of liquor, syphilis, and a prolonged exposure to malarial influences will produce it. When seen in very young subjects, it may generally, with very good reason, be attributed to congenital syphilis.

Let us pause to consider briefly the morbid anatomy of the affection. In this case the cirrhosis is evidently due to alcohol. In the excessive use of this substance the liver is the first organ to suffer organically, because the alcohol reaches it immediately after its absorption, in a comparatively unaltered state, and diluted only by the secretions of the stomach. Acting as an irritant, if long continued it soon excites an overgrowth of the connective tissue along the ramifications of the portal vein. The first product is a round-celled embryonic tissue, by the presence of which the bulk of the liver is actually increased; but, organizing into fibrillated connective tissue, it has the property of all such new-formed tissue, it contracts, and compresses the proper parenchyma of the organ,—that is, the cells,—and destroys them. When the circlets formed by the smaller branches of the portal vein are involved, the areas included in them are compressed and forced to rise upward, forming grain-like elevations, whence the term "granular liver." When the branches of medium size are involved, larger areas of liver-substance are compressed, and elevations, of which many correspond in size to the hob-nail, are produced, and there results the so-called "hob-nail" liver; and when still larger branches of the portal vein are involved, we have even larger bulging areas, and a "lobulated" appearance results.

As to the treatment, I am confident that small degrees of interstitial hepatitis may be removed by appropriate measures; and even where the overgrowth of interstitial tissue is decided, the process may be so modified that the liver will be able to perform its offices. Most important, however, is the removal of the cause; and where this is the excessive use of alcohol it must be discontinued if any results are to be expected.

The remedy for the removal of the hyperplastic connective tissue is pre-eminently iodide of potassium. It is best given in moderate doses while fasting, and in a large quantity of water. Two and a half grains in a tumblerful of water and on an empty stomach will do more good than five grains in a small quantity of water after meals. Along with this, the bowels must be kept active with salines. If there be any specific taint, one-thirty-second to one-twenty-fourth of a grain of bichloride of mercury may be given along with the iodide, three times a day. In malarial cases iron and arsenic are indicated. Counter-irritation over the region of the liver may be produced by an ointment made up of equal parts of mercurial and belladonna ointments. In this patient the treatment has been five grains iodide of potassium, largely diluted, three times a day, fasting, and his bowels have been kept freely open by the administration of salines. He has greatly improved under this treatment, and says that he is very much better. There is still, however, some fluid in the peritoneal sac, which had much better be removed by tapping; and I had intended to tap him in your presence, but he objects to the operation, and I will not insist upon it. He will improve much more slowly than if this water were taken away.

DRESSING OF WOUNDS.

BY MR. GOULD,

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GENTLEMEN,—My intention this afternoon is to talk to you plainly and simply of familiar surgical truths, which, by their very familiarity, have lost a great part of their force, and, therefore, some of their value. I think, therefore, that I could not occupy your time better than to speak of wounds and their treatment.

Whatever your practice may be, you will all be engaged in the treatment of wounds: it is the one subject which confronts every medical man, be he surgeon or physician. Then, again, not only is the treatment of wounds necessary for our profession to understand, but it also forms the largest part of the work of the surgeon; and all of you must be aware that within the last ten years there have been very great advances made in this subject of wound-treatment; and yet on every side we find differences in their treatment. One man says, leave them alone; another says, you must have all the elaborate parapher-

nalia of antiseptic treatment; another uses cold water only; another applies astringents or caustics; some apply heat; some apply various wet dressings; others, again, apply dry dressings; some say the dressings should be light; others, again, say, use firm compression.

We find that under all of these plans excellent and brilliant results have been obtained. This is a stumbling-block to many of us when we come to treat wounds on our own account. I will, therefore, call your attention to what I believe to be the principles of treatment for these various details of wound-treatment.

First of all, what happens if there is no treatment at all? I mean absolutely no treatment, such as wounds that never come under the care of the surgeon at all, in those outlying districts where the patient is so far removed from medical aid. Now, what happens here? A very large percentage heal up perfectly; but we find differences in what is called the natural process of healing wounds. Here let me limit myself and say that I am going to talk only of open wounds, not including fractures, etc.; neither will I speak of old wounds or old ulcers, but confine myself to recent wounds. Now, we find that these recent wounds are said to heal in one or two ways: first, that some have been known to heal immediately,—that is, the severed surfaces being brought together, there is a gluing or uniting together of the surfaces or edges of the wound in exactly the same position as previous to the injury. That, however, has never been shown to exist, and I hardly see how the human mind can grasp such a mode of healing: for my own part, I reject it entirely. When you read that each wounded severed fibre shall be returned with accuracy end to end, I think that is unnecessary; and when you read of such a case as amputation of the breast, you will see at once that the whole thing is really absurd.

Of the real mode of healing wounds, the immediate, or union of severed edges and surfaces by some uniting material, is divided into three subdivisions,—healing by first intention, secondary intention, with a subdivision of what is called third intention, and what is called scabbing. I will not, however, go into these four divisions, as I want you to recognize this fact, that they are all essentially the same. I consider it to have been a mistake that so much time should have been occupied in calling attention to these modifications. Healing by first intention takes place when two surfaces are brought into practically precise apposition; lymph then being exuded becomes organized, and unites them with living matter. Healing by secondary intention is where the chasm is left and slowly filled up to the surface, and then undergoes a process of epitheliation. Healing by scabbing is an intermediate form, as in a punctured wound where there is a small space left between the severed surfaces, and the chasm is filled up with lymph and so organizes and fills up the wound. Now, if you take a wound that is healing by first intention, and tear it asunder, you then have a wound healing by secondary intention; if you bring the surfaces of a wound together after they have begun to granulate, and retain them there, you have practically healed that wound by first intention. I would first impress upon you that it is nature that heals wounds, and not the surgeon. Any man that speaks of himself as healing a wound is using language that he has no right to use. No surgeon ever has healed or ever will heal a wound. Surgeons do a good deal to aid in the healing of wounds. We are, however, met by this glaring fact, that nature makes a sad mess of a large number of wounds by her process of healing; and, although we cannot heal wounds, we have an important part to play in waiting upon nature as her handmaiden. Then, in what direction may nature fail in this process of healing wounds?

1. In the arrest of hemorrhage; but in a large number of cases nature arrests hemorrhage perfectly. When, however, large arteries or veins are cut across, we may have a fatal hemorrhage before the wound can be closed by nature. In such a case the surgeon steps in.

2. Nature fails in removing foreign bodies in a large number of cases.

3. Nature fails in the approximation of surfaces: not only is she unable to approximate them, but she draws them asunder.

4. Nature does not allow the parts to be at rest.

5. Nature allows tension to occur in a wound. And here allow me to point out for a moment the difference between what are called subcutaneous and cutaneous wounds. You are all familiar with the important fact that in subcutaneous wounds decom-

position never takes place, but that in a surface-wound it may occur. A second great difference is this, that in the subcutaneous wound there is rarely an excess of exudation of lymph, while in surface-wounds there is always an excess of lymph exuded, and, unless that excess is carried off in some way, tension is the result, and that tension infallibly sets up febrile and inflammatory action. No antiseptic treatment can prevent that excess of lymph exuded, although it does prevent the sepsis.

6. The power of nature to prevent sepsis is very limited; and if you have any accumulation of matter from a wound being exposed to the air, it may undergo decomposition, and this may pass into the general system, which, passed into the general system, may prove fatal; and, even if it be not absorbed, it may act as an irritant. Wounds do not heal by inflammation. Inflammation is the most frequent cause of the failure of wounds to heal rapidly. The healing of a wound is a physiological process, while inflammation is a pathological process as well as a destructive process. One thing that surgeons have to prevent is the occurrence of inflammation.

We may now take up the question, What have surgeons to do in the treatment of wounds? They have to attend to these six principles of wound-treatment. It is well that we should always bear in mind that all surgical interference is attended with certain drawbacks, and therefore, when applying any treatment of any kind to a wound, to adapt our means closely to the ends in view. In hemorrhage it may be absolutely necessary for the surgeon to come in; but we have not to consider that alone, but we have to reduce the interference to a minimum. Now, the natural process of healing a wound has no drawbacks, but our method of treatment causes the wound to heal slowly. We should, therefore, always choose those means which interfere the least. In the application of pressure we are apt to apply this without a thought, as it were; but when we consider the extreme sensitiveness of these cut surfaces, it is an extreme irritant to the nervous functions, and so far as we irritate those nerves so far are we interfering with the healthy nutrition of the wound. Cold and heat, again, may interfere with the nutrition, and are therefore not to be used lightly. Then we come to the torsion and ligation of arteries. Torsion, I am inclined to think, is the best, as it interferes less with the healing of the wound than the ligature. Of ligatures, those which are organizable—as catgut or structures of that kind—are undoubtedly the best; they interfere least of all; but, inasmuch as they are at first foreign bodies, a certain process having to take place for the organization of these ligatures, they add to nature's work in healing wounds. Those ligatures that always remain in the wound necessitate a certain amount of inflammation, and are therefore so far bad. But do not go away with the impression that I am telling you not to use these means. I desire simply to impress upon you that each one has a drawback of its own. You must use them, but use those which have the least possible drawback.

Removal of foreign bodies.—This is essential if we desire to unite these surfaces by first intention: not only is their capability there, but they are irritants as well. For these two reasons, foreign bodies in all cases within limits should be removed. But, again, we have drawbacks in the violence offered in their removal, if we take, for instance, a man who has received a gunshot wound, and the powder is blown into the tissues. Now, to remove every grain of gunpowder would require considerable rough handling of the wound, and in doing so we should do far more harm than the gunpowder would do to remain there: so that, unless we can remove these bodies in a manner which will cause less harm than to allow them to remain there, we must leave them alone. We never get healing by first intention without the surfaces are approximated. The surfaces should be brought evenly and closely together; but this, remember, cannot be very well done. We may press them so closely together as to destroy their vitality; but every one of our surgical means attending this approximation is attended with drawbacks. The common way is by sutures; but this has its drawback, as it draws upon a limited area only, we never get a perfectly even approximation, and, again, these sutures are foreign bodies, and, as you are aware, it has been the effort of our surgeons of late years to find out the least irritating sutures. Some use catgut, silk, wire, horse-hair, etc.; and here, again, the same truth I desire to impress upon you,—that while it is necessary to use these means, always look out for the drawbacks.

Movement.—I am now come to the most important I have yet spoken of. It is essential to keep healing wounds at perfect rest. Were I to take the whole hour to endeavor to impress this upon you, the time would be too limited, it being of such great importance. First of all, movement of the wound causes pain, and to prevent pain is one of our first duties. Not only does the irritation of the sensitive nerve-end cause pain, but it causes reflex action and irritation. Then, again, movement is injurious, because it separates the surfaces and tears asunder the lymph which is between them, and undoes what nature has taken many hours in doing. A surgeon could perfectly prevent a wound from healing by simply making movement. It is therefore impossible to overestimate the necessity of rest in the healing of wounds. Now, how are we to secure this rest? There are many difficulties in relation to this matter. In order to secure rest for one part of the body it is necessary to keep the whole body at rest, and that is less favorable for the general nutrition of the patient; that is one drawback. Or, you may have to put the patient in uncomfortable positions; and, again, we frequently have to apply splints and dressings tightly; then there is the danger of interfering with the circulation of the limb. And, although it is our duty as surgeons and doctors to apply these dressings, it is desirable to reduce all drawbacks to a minimum.

Tension.—This is found specially in the wounds that are treated by the surgeon. Although the material of the wound may be perfectly sweet, not decomposed in any way, and not containing any irritating material, tension will infallibly prevent the healing of the wound. This it does, not simply because of liquid being between the surfaces, but because the actual tension of the wound is the direct cause of inflammation. So if a wound is imperfectly treated by the surgeon, and tension takes place, the patient becomes uncomfortable, there is pain in the part, the part becomes swollen, and a red blush appears, the temperature and pulse rise, and there are all the signs of inflammatory fever. Relieve that tension, and almost instantly the redness and inflammation subside as if by magic, and the patient returns to a condition of health.

We now come to sepsis, or the decomposition of these fluids. This, with the arrest of hemorrhage, I shall place as the most important in the treatment of wounds from one point of view; that while each of these previous steps is important in the healing of wounds, they are not important in the matter of life and death; but these decomposing fluids are important in the matter of life and death. While you have decomposition the patient's life is always in danger.

Do not go away with the idea that because a wound has a foul odor, your patient's life hangs by a thread. A germ absorbed into the body from this decomposing matter is generally fatal, but not always so. By a beautiful law of nature, a granulating surface does not absorb readily; but if we have tension added, then we have the whole picture changed. Then inflammation occurs, preventing the healing process in the wound, and in this condition we have absorption going on more rapidly, an inflamed wound absorbing septic material far more readily than a granulating wound. Therefore, when to tension you have added decomposition, you have always a grave danger.

These six points, I think, are all that the surgeon has to take into consideration in the treatment of wounds. Now as to the various popular ways in which wound-treatment accomplishes these results. I will take up first what is called no treatment at all. I purposely omit the general treatment here, as it is impossible to say much upon the matter in an hour. I would simply say that alcohol never helps the process of healing. Now, in the "no dressing" of wounds. Here there is no special dressing put on, and no antiseptic dressing applied. Approximation of surfaces is considered of slight importance; but the great danger of septic matter is where there is only partial closing of the wound. If the wound is left entirely open, it is said there is no danger of tension. I hardly think it true, however. The difficulty is just this: the surgeon always has a desire to secure the rapid healing of a wound, and the question is as to how wide the wound is to be left open for the escape of waste matter.

The second method is the dry method. In this case great quantities of cotton-wool are placed upon the surface. The large amount of wool filters the air to a certain extent, and the tension of the wound may, perhaps, be prevented.

Then, again, we have the exact application, in which the compression is kept up. That plan of treatment is an excellent one, and excellent results have been obtained from its use.

The most popular form of treatment, however, is the aseptic form of treatment. While not losing sight of these other steps, it aims principally at the prevention of decomposition. But, while all of these are very important, the first and primary object of the surgeon is to prevent decomposition, and afterwards to pay attention to the other points.

This is my own form of treatment, and, so far as I have seen, I believe it to be the best. But I desire you to remember that the aseptic treatment is not a treatment which aims solely to prevent septicism; but the surgeon must keep in view these six principles which I have given you, if he desire to treat wounds successfully. It is mere child's play, in my opinion, for surgeons to quarrel as to whether attention is best directed to one, two, or more of these points. Every one is important, and he will be the most successful surgeon who pays attention to all of them. But I would beg you to prove and test these principles in your own practice, and then hold fast to those which are good.

ORIGINAL COMMUNICATIONS.

STRICTURES OF THE URETHRA SITUATED AT OR NEAR THE MEATUS: THEIR CAUSES, NATURE, AND TREATMENT.

TOGETHER WITH A DESCRIPTION OF A NEW MEATOTOME.

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AMONG the direct consequences of gonorrhœal inflammation of the male urethra, stricture of the urethra is by far the most frequent result, and to its influence, direct and indirect, the origin and continuance of most chronic urethral affections may be ascribed. The stricture or strictures may be situated directly at the meatus, or may occur in any portion of the urethral canal between the meatus and the prostate gland. In regard to the frequency of its occurrence in these situations, several different views have been advanced. According to Sir Henry Thompson, sixty-seven per cent. of all strictures are situated within the membranous portion of the urethra, sixteen per cent. are located in the region between the membranous urethra and within two and a half inches of the meatus, and seventeen per cent. occur either at the meatus or within two and a half inches of this point. The senior Gross differs from the above in placing the point of greatest frequency in that portion of the urethra situated between the scrotum and the head of the penis, and the point of least frequency at or near the meatus. The measurements of Sir Henry Thompson were obtained from post-mortem specimens. On the other hand, Dr. S. W. Gross,* in a tabulated statement of 173 cases of stricture, where the measurements were made on the living subject with the bulbous bougie, places the points of relative frequency as follows: 76, or 43.93 per cent., in the posterior portion; 48, or 27.74 per cent., in the middle portion; 49, or 28.32 per cent., in the anterior portion of the urethra, or at the meatus.

Dr. Fessenden N. Otis, of New York, whose indefatigable labors on this subject are well known, is a firm believer in the greater frequency of strictures in the spongy portion of the urethra or at or near the meatus. In a *résumé* of 258 cases,† he places the points of relative frequency as follows: 52 at the meatus or within the first quarter-inch of the urethra; 63 in the following inch, viz., from ¼ to 1¼; 48 from 1¼ to 2¼; 48 from 2¼ to 3¼; 19 from 3¼ to 4¼; 14 from 4¼ to 5¼; 8 from 5¼ to 6¼; 6 from 6¼ to 7¼.

Dr. Otis has also advanced the theory that many supposed cases of deep-seated stricture are not organic, but spasmodic, owing their existence to the reflected irritation of an undetected stricture, generally of large calibre, situated in the anterior part of the canal.

Dr. Bevan, of Baltimore,‡ reports the measurements of 225 cases as follows: 38 in the first quarter-inch, including the meatus; 47 between ¼ and 1¼; 51 from 1¼ to 2¼; 50 from 2¼ to 3¼; 14 from 3¼ to 4¼; 11 from 4¼ to 5¼; 9 from 5¼ to 6¼; 5 from 6¼ to 7¼. Of these, 186, or 82 per cent., it can be seen, were located within the first 4¼ inches.

* New York Medical Record, 1875.
† Otis, Stricture of the Male Urethra, p. 206.
‡ New York Medical Record, December, 1880, p. 640.

My own experience has been similar to the above. In the records of 100 cases, 10 were situated at the meatus, or within the first quarter-inch; 38 from ¼ to 1¼; 22 from 1¼ to 2¼; 15 from 2¼ to 3¼; 9 from 3¼ to 4¼; 6 from 4¼ to 7¼ inches.

Summing up these cases, we find, from the measurements of S. W. Gross, Otis, Bevan, and myself, in all amounting to 756 cases, that 418, or 55.4 per cent., were located in the first 2¼ inches; 203, or 26.9 per cent., from 2¼ to 4¼ inches; and 135, or 17.7 per cent., from 4¼ to 7¼ inches. Should we leave out the results of Dr. S. W. Gross, the discrepancy from Sir Henry Thompson's measurements becomes still greater. In 583 cases, 369, or 63 per cent., were situated within 2¼ inches of the meatus, or 524, or 90 per cent., were located within 4¼ inches of the meatus.

The discrepancies between the two sets of observers represented by Thompson for the one class and Otis for the other may be largely explained when we consider that the observations of the former were founded upon examinations of post-mortem specimens, and only such cases of stricture were enumerated as were apparent after death. Otis, Gross, and Bevan made their measurements upon the living subject, and no doubt counted in a number of slight constrictions, probably not apparent after death, which their opponents would not admit to be organic strictures at all, but which nevertheless were proved by the results of treatment to be a fruitful and continued source of evil. The greater percentage of strictures in the anterior portion of the urethral canal would also seem to be but a logical sequence to the course of a gonorrhœa. We know that the disease usually begins at the meatus and gradually travels backwards along the urethra, diminishing in virulence as it proceeds, and we therefore should expect to find most traces of inflammatory action at points where the pathological process has been most intense. Moreover, we know from clinical experience that in over fifty per cent. of cases of gonorrhœa the disease does not affect more than the first three inches of the urethra. We should therefore justly expect the greater number of strictures from specific urethral inflammation to be situated in the anterior portion of the canal; and our expectation has been borne out by the facts. Strictures of the deep urethra more generally are the results of traumatism; they may also occur from gonorrhœa, but then are the result of frequent attacks, and are usually accompanied by one or more anterior strictures. A potent factor in the question may be found in the fact that different methods of diagnosis have guided the observers. The old school, under Sir Henry Thompson, relied upon post-mortem specimens, and the indications afforded during life by explorations made with the steel bougie or sound. The new school, of which Otis is the originator and most shining light, base their conclusions upon careful measurements taken from the living subject with accurate diagnostic instruments, such as the urethrometer and bulbous exploratory bougie, and improved methods of research. It may be added that the weight of recent medical testimony is overwhelmingly in favor of the new school, and Sir Henry Thompson himself, in a recent address, has practically admitted the truth of their conclusions. From these facts we can readily understand that strictures at or near the meatus must necessarily comprise the majority of the cases which are brought to the notice of the physician. A few points concerning their origin and treatment may therefore prove interesting.

Strictures of the urethra of specific origin, whether deep-seated or located in the region of the meatus, bear a distinct and direct relation to gleet and chronic urethral discharges. I do not think I make an extravagant statement when I assert that out of one hundred cases of urethral inflammation in which the discharge lasts over three months fully ninety or more owe their continuance to the presence of an organic stricture of the urethra. Cases of long-standing gleety discharges, exceedingly rebellious to ordinary methods of treatment, are but too common, and in many cases the failure to cure may be ascribed either to deficient knowledge on the part of the physician or to a neglect of careful urethral exploration with proper diagnostic instruments. The average practitioner is satisfied with writing a prescription for a copaiba mixture or an injection of sulphate of zinc and opium, and never thinks of doing anything more. Should he be more enlightened, he is too apt, unfortunately, to make his urethral explorations with the ordinary conical steel

sound, and, finding with it no stricture, conclude that none exists. *The fact is not sufficiently recognized that the meatus is not a correct index to the calibre of the urethral canal.* It may be contracted by cicatricial tissue, by traumatism, by disease, or may exist contracted congenitally, and hence must be a faulty and imperfect gauge. The dimensions of the urethral canal may be much larger behind this contraction, and an instrument which is sufficiently small to be passed through the meatus will entirely fail in detecting any stricture of large calibre situated behind. Narrow and tight strictures can of course be easily detected by this imperfect method of examination, but in such cases their presence is also indicated by other characteristic signs. Where strictures of large calibre occur,—and they constitute by far the greater majority,—they must, however, pass entirely unrecognized.

It has been my peculiar province to meet with quite a number of cases of chronic urethral discharge where the patients had been pronounced by previous medical advisers to be perfectly free from stricture. In almost all of these cases I have found the trouble to proceed from one or more strictures of large calibre situated either at the meatus or from one-quarter to one and one-half inches back. These latter strictures were generally linear, forming a band several lines in extent and thickness, and elastic in character. They were accompanied by localized patches of granular inflammation, or else immediately behind the stricture would be found a small area more or less denuded of mucous membrane, and inflamed to a degree sufficient to bleed upon slight pressure. In many cases, also, the influence of the stricture would be sufficient to cause a sensitive and hyperæsthetic condition of the mucous membrane of the whole canal. In all of these cases, however, there was increased sensitiveness of the membranous and prostatic portions of the urethra, and in several the hyperæsthesia was so great as to render the introduction of an exploratory instrument in that region a matter of extreme difficulty. When the point of the instrument reached the membranous region, the spasmodic contraction of the muscles was such as to prevent for a time its passage and to strongly simulate organic stricture. Other symptoms common to these cases besides the discharge were pain in the lumbar regions, perineal pains, increased frequency of micturition, etc.

The recognition of this class of strictures is not an easy matter. They do not, as a rule, result from the more severe cases of gonorrhœa, for in such cases the amount of inflammation is sufficient to produce a stricture of well-marked and decided characteristics. On the contrary, from the history of a number of cases, they are more prone to result from light or "bastard" gonorrhœa (non-specific urethritis), in which there is not a high degree of inflammation. The discharge is scanty, whitish, and semi-albuminous in character, and slow to disappear, and there is little swelling of the urethra or pain on micturition. When the discharge continues for a month or two, this slow inflammatory action appears to develop the form of stricture above alluded to, probably by causing an agglutination of one or more of the delicate longitudinal folds which the urethra assumes in a state of rest. It also may be that this agglutination occurs at a point where there is already a slight transverse ruga of the urethra, and, by a minute deposit here of exuded lymph in the longitudinal fold, so diminish the calibre of the urethra at this point as to produce a thread-like stricture scarcely noticeable. Yet this insignificant constriction, by its irritation, can prolong indefinitely a urethral discharge. How?

It is a fact well known in physical experimentation that the velocity of a stream of liquid flowing through a tube is proportioned to the smoothness of the internal surface of the tube. Should the surface be rough, as, for instance, in a tube of cast iron, the velocity of the stream will be much less than in a tube of smooth glass, as the friction developed by the passing of the current over the inequalities of the iron will materially impede the flow. Moreover, at each minute inequality will be developed a point of friction or rubbing. Now, the urethra is simply a tube for the exit of the urine from the bladder, and is subject to the same physical laws. As the urine passes through the canal, this slight constriction, offering, as it does, an impediment to the current, will develop at this point a small amount of friction. Small as this amount is, its irritation is sufficient to keep up a discharge. It may be argued that the exploration of any normal urethra by means of a delicate instru-

ment might reveal transverse bands even more marked than that of the point of stricture. Why do not these produce an inflammation of the urethra in their close vicinity by means of the obstruction which they must offer to the smooth passage of the urine? It may be answered that in a healthy urethra the amount of friction developed at these points is not sufficient to *produce* inflammation. The urethra must be already inflamed, abnormal in its condition; then the irritation will be sufficient to keep the canal at this particular point in a state of subacute semi-chronic inflammation. This transverse ruga may therefore itself, from a normal part of the urethra, be developed gradually into a pathological structure by the gradual deposition of lymph or inflammatory swelling. Strictures of the meatus often are developed by the same process. A man may be born with a congenitally contracted meatus, and never while healthy suffer more than a temporary inconvenience from its presence. But let once gonorrhœa, even though it be of mild character, be contracted at this point, and the irritation of the stream of urine to the constricted meatus, before unproductive of harm, will now develop a state of affairs often to be remedied only by an operation out of all proportion to the original trouble. In fact, most strictures of the meatus are produced, or, more properly speaking, aggravated, in this manner. Very few cases of gonorrhœa are sufficiently severe to cause stricture of the urethra at this point, few are the results of traumatism, while the majority of cases brought to the surgeon for treatment are simply the results of gonorrhœal inflammation upon a congenitally contracted meatus.

As I have before stated, strictures of the above class are prolific causes of protracted urethral discharges. The discharge is not generally of a character sufficient to create much discomfort, but the patient, who is almost always exceedingly sensitive on this point, recognizes that there is a discharge, and gives himself an amount of mental disquietude out of all proportion to the gravity of the case. These strictures escape detection for two reasons: first, the physician, from the history of the case and the lightness of the attack, does not suspect that a stricture exists; second, the urethral exploration, if performed at all, is not done with proper instruments or with sufficient care. I must reiterate, even at the risk of seeming tedious, that it is impossible to detect a slight stricture of large calibre with the ordinary conical steel sound. The weight and tapering extremity of the instrument cause it to act as a wedge; and, as the stricture is always elastic, it is so gently dilated as to cause no interruption to the smooth passage of the sound. The proper diagnostic instrument is the bulbous exploratory bougie, either that of metal, as recommended by Otis, or the French *bougie à boule*, made of rubber-covered webbing. My own preference is for the latter, as its lightness, flexibility, and elasticity allow of a delicacy of manipulation impossible with the metal instrument, and it imparts to the fingers of the operator indications of the slightest inequality or irregularity in the canal. He must be prepared to notice these, for, the stricture being of a slight character, the passage of the instrument may so dilate it as to render it entirely unrecognizable for the remainder of the sitting. Should a hitch or slight obstruction be noticed in passing over any point, the bougie should be at once gently withdrawn, so as to indicate by the resistance offered to the blunt shoulder of the instrument the exact location of the stricture. This location will be shown by the feeling imparted to the fingers of a slight "roll" or jump as the tip passes over the point of obstruction. The bougie should be carefully examined when withdrawn from the urethra, and should the "roll" of the instrument be accompanied by the presence of blood or muco-purulent bloody matter behind the shoulder of the acorn-tip, it may be regarded as proof positive that a stricture exists. In cases where the meatus is at all contracted, and also where exploration by the previous method has produced no results, the urethrometer devised by Dr. Otis should be employed. This allows the bulb of the instrument to be expanded after its passage through the meatus, and thus will detect a stricture whose diameter, while less than that of the urethra, is greater than that of the meatus, and which could not be recognized by an instrument small enough to pass through the latter.

The next question is as to treatment. The methods of treatment may be summed up as follows: gradual dilatation, rapid dilatation, internal urethrotomy, and electrolysis. Of all these methods, gradual dila-

tation may be regarded as the most used and the most useless. While in strictures of the deeper parts of the urethra this course may produce good results, in the treatment of the special classes of strictures to the consideration of which this paper is devoted it is productive of no good whatever. Thousands of patients all over the United States are, and probably have been for the past several years, passing with painful regularity a bougie for the relief of a chronic gleet or an organic stricture. The greater majority of these are not one whit better than when the treatment was first commenced. Space will not permit me to go into a lengthy argument on this point: suffice it to say, briefly, that treatment of strictures, particularly when of large calibre and when situated near the meatus, is not successful by the method of gradual dilatation, for several reasons. The character of the tissues, the limited size of the meatus, and the elastic nature of the stricture render all treatment of this character either negative or positively harmful. What physician with any experience in urethral surgery cannot call to mind scores of cases where the patient had been "bougied" *ad nauseam* without any beneficial result? As a therapeutic remedy, gradual dilatation ranks high in various obstinate urethral affections, but in the treatment of strictures at or near the meatus it is worse than useless.

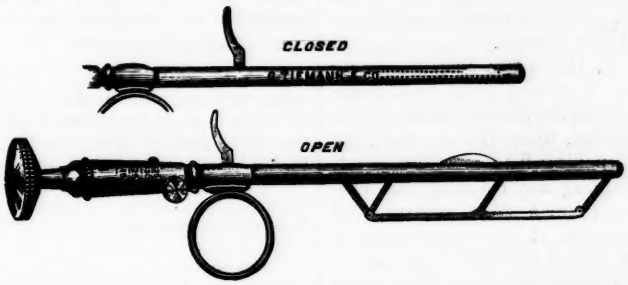
Rapid dilatation is not much more successful. In tough and resisting strictures of the pendulous urethra very good results have been achieved, particularly where the dilating instrument used has been constructed on the principle of the Otis urethrometer,—that is, by the expansion of a portion of the instrument only, without including the meatus in the expanded portion. In elastic strictures, however, and in cases where the stricture is situated within the limits of the penis, the elastic character of the stricture or the non-dilatable tissues of the glans render the operation impracticable. The tissues of the glans do not allow of much dilatation, and consequently great pain is produced by any effort to produce the amount of stretching necessary to success.

As a rule, internal urethrotomy affords the best results in these cases. It is now a settled and recognized plan of treatment among all enlightened physicians to cut strictures of the meatus. The same method applies equally well to those situated not deeper than four inches from the meatus, particularly when the stricture is elastic in character. In fact, these latter can only be removed by an incision, as dilatation but stretches them, and when the dilator is removed they relapse to their original condition. Urethrotomy effectually severs the band, and consequently allows the canal to regain its normal calibre. An expanding instrument of the Otis plan should always be employed, as the stricture is more effectually divided with a slighter incision than where the knife is used on the flaccid urethra.

The instruments recommended for incising the meatus have always been unsatisfactory. A knife of some shape, bistoury, tenotome, scalpel, pointed or blunt, or the *bistouri caché* of Civiale, have been usually employed. The latter instrument has long ago been retired into well-merited obscurity, and the knife is the only method. The trouble is with this that either too little or too much cutting is done. The impossibility of accurate measurement, the profuse bleeding of the parts, the unsteadiness of the hand of the operator, the retraction of the penis, are all difficulties which tend to interfere with a perfect result. The patient, if anything, is cut too much, and he goes around with an immense slit in the end of his penis, which, from the destruction of the natural shape of the outlet, causes much discomfort in urination.

In operating upon cases of stricture of the meatus, and in other cases where the stricture was situated a short distance behind the meatus, I have been accustomed to use the admirable urethrotome No. 4 of Dr. Otis. For such purposes, however, the instrument is large and consequently inconvenient, calling for the use of both hands, and thus requiring the services of an assistant. I therefore, after some thought, devised the following little instrument, based upon the same principles as the urethrotome of Otis. I wished to obtain a small compact instrument, capable of operating upon all strictures within two and a half inches of the meatus, which I could manage with one hand, and which would cut with exactness and regularity. For the successful accomplishment of my desires I am much indebted to Messrs. Tiemann & Co., of New York, by whom the instrument has been constructed.

The instrument consists of a straight rod of steel, about four inches long, attached to a short handle. This rod is hollow, and conceals on the upper side a movable knife-blade, and on the lower side an expanding bar similar to that used in all of Otis's instruments. The expansion of this bar is regulated by a milled head forming part of the handle of the meatotome, and the amount of expansion is indicated by an index moving up and down upon a graduated scale upon the upper surface of the handle. In my own instrument the amount of expansion ranges from No. 15 to No. 35, French scale; but it can be made greater or less, if necessary, in another instrument. The knife-blade is attached to a concealed steel rod sliding through the hollow rod of the instrument and terminating at the rear in a finger-piece or shoulder. The blade can be completely withdrawn, if necessary, for purposes of cleansing. A finger-ring placed on the under side of the handle completes the instrument. I should also say that the knife-blade is somewhat larger than usual, and is so arranged as to be concealed when in place. The withdrawal of the knife-rod causes the knife to project at once from the upper surface of the instrument. The cut represents it as both closed and open.



The method of operation is as follows. The patient is placed in a reclining position, the exact location of the stricture having been previously ascertained. The closed meatotome is well oiled, and the rod gently inserted in the urethra until the extremity containing the knife is about one-quarter of an inch beyond the stricture. The milled head is then rotated until the expanding bar dilates the urethra to the proper degree, previously determined. For instance, should it be determined to bring the meatus up to 30 Fr., the instrument is dilated to 23 or 25 Fr., the incision made by the knife accomplishing the rest. The operator now steadies the penis with one hand, pressing the sides rather tightly against the instrument within, so that there shall be no slipping, and, with the handle of the meatotome in his other hand, inserts the middle finger of this hand in the finger-ring, steadies the milled head firmly against the palm of his hand, and, by his forefinger pressing against the finger-rest, forcibly withdraws the knife. As the knife is withdrawn, it comes in contact with the band of stricture kept tense and dilated by the expansion of the instrument, and effectually incises it. The milled head is reversed so as to contract the expanding bar, the knife returned to its place, and the meatotome withdrawn. Should the operation be at or very near the meatus, this will not be necessary, as with the cut the whole instrument will slip forward and out. Should it be necessary, the stricture can be still further divided by reinserting and expanding the meatotome, and again cutting; but one operation is generally all that is necessary. I have now operated with this instrument in a number of cases, with gratifying results, and it has met with similar success in the hands of several of my friends who have used it repeatedly. It cuts quickly, evenly, and with perfect exactness, and with a little experience the operator can so regulate the expansion as to cut the meatus or the stricture to just the size desired, neither more nor less. Its small size,—being altogether only five and a half inches long, it can be easily carried in the vest-pocket,—its compactness, accuracy, and ease of manipulation, will, I think, commend it to all. Its great excellence, in addition to its precision, is that as the instrument can be manipulated almost entirely with one hand, the other is left free to manage the penis; and I need hardly tell any one how much better the

surgeon can do his work with the co-ordination of his own two hands than when he is dependent upon the services of another. A peculiar feature that I have noticed while using the instrument is the small amount of pain occasioned. The stretching of the urethra seems to obtund the sensibility of the nerve-filaments, and, as the operation is over in a moment, the patient is extremely gratified by the rapidity and slight discomfort of the process.

The uses of this little instrument do not end here. I believe it to be exceedingly well adapted for like operations upon the female urethra, upon the os uteri, for dilating and opening fistulous tracts, and, in fact, performing any dilating and cutting operation upon a short, narrow, and contracted passage. I have found it good practice after these operations to use a short urethral suppository or medicated bougie of a sedative and slightly astringent character. It separates the divided tissues and keeps them from reuniting, and, at the same time, encourages the unhealthy spots of mucous membrane to healthy action. I have not found it necessary to resort to the usual plan of after-treatment with sounds, believing that my cases have done better without their use. They only irritate and do not produce much benefit. If the stricture is properly divided, there is little or no danger of subsequent contraction of the parts.

In reference to electrolysis I have said nothing, having had no experience in its use. From the brilliant results obtained by Dr. Newman, of New York, in the treatment of a number of cases of narrow and deep-seated strictures, I believe its use would be attended with much success in those of larger calibre. My purpose in this paper has been simply to direct the notice of the profession to the neglect of proper examination and treatment of many obstinate and annoying cases of urethral discharge; and should I have succeeded in throwing any more light upon the subject, I shall feel fully repaid for my labors.

839 Race St., Philadelphia, December 10, 1882.

Milk-Poisoning.—Dr. Brush calls attention to the direct connection existing between cow's milk and cholera infantum, in a very suggestive and timely address, read before the Westchester County Medical Society, New York, and quotes some convincing cases. —*Medical Record.*

A CASE OF POISONING BY GELSEMINUM SEMPERVIRENS.

BY L. L. FRIEDRICH, M.D.,

Washington, D.C.

THE following very interesting case occurred in my practice some time since, and I take great pleasure in presenting it to the profession, as I had the opportunity of watching the various symptoms from the beginning.

Miss M., aged 14, large for her age, but very nervous and weak, took, August 17, at 11.45 A.M., a teaspoonful of an old fluid extract of gelseminum sempervirens by mistake for the bitter wine of iron. This preparation happened to be in the house, and had been prescribed over a year before by the family physician, who had assured them that it was a perfectly harmless remedy.

I was sent for at 12.30 P.M. The patient complained of dizziness and headache. I made inquiry as to whether any medicine had been taken, and was told that, with the exception of a little buttermilk, she had taken *nothing*. Whiskey was given, as she was suffering with great prostration and muscular relaxation. Two convulsive attacks now coming on, a hypodermic injection of one-eighth of a grain of morphia sulphate was administered. Improvement immediately took place, and I left the patient for the time being, with directions that I should be sent for if any change occurred.

I had scarcely reached home when I was again sent for, and was told of the sad mistake, that gelseminum had been taken instead of iron. The symptoms by this time had become very marked. Prostration and muscular relaxation were excessive, so much so that she reeled and staggered about with two persons trying to keep her moving; she sank to the floor exhausted under whipping and slapping, and incoördination affected the entire system. The pupils of the eyes were widely dilated; everything appeared double; paralysis of the upper lids and lower jaw; the saliva ran from the corners of the mouth; the face was markedly congested. The tongue was also affected, and, to use her expression, so thick that she could not talk. The pharynx was also affected, so that deglutition was impossible except with great difficulty. Symptoms resembling hydrophobia set in. Hearing was greatly altered; sounds seemed as though they came many miles distant. A semi-comatose condition now supervened; the congested appearance of the face vanished into a pale, death-like expression; cold, clammy sweats covered the entire surface, and there was a marked lowering of the temperature. The pulse, which at first was quick and bounding, began to get feeble and thready. Respi-

ration, at first normal, now began to be gasping.

Total unconsciousness came on; she could not be roused; skin was moist, and extremities cold.

The treatment was directed towards emesis and stimulation. Thirty grains of sulphate of zinc and a teacupful of mustard-and-water were given, but, owing to the action of the drug, enough was not absorbed to produce any effect. The throat was tickled with a feather, and a finger pushed down the pharynx, but without avail. Strong infusions of black coffee were given, together with hypodermic injections of whiskey (of which seventeen were used); also artificial respiration, after the manner of Silvester, hot affusions, mustard to the extremities and spine; at the same time messengers were despatched for stomach-pumps, but none could be obtained until the poison had time to become absorbed, so none was used.

By continued stimulation and friction the patient began to improve, so that by 6 P.M. she was so far recovered as to be able to swallow liquids with ease, and was then left to nature to bring about her complete restoration.

She was sent to bed, where she slept all night. The next morning she said she felt well, but weak and dizzy.

She recovered without further difficulty, except that a great many ulcerations occurred at the seat of the hypodermic punctures, which healed slowly. About five or six days after, a few ulcers made their appearance on her left ankle, which also were quite obstinate, but finally healed by strapping the part with adhesive plaster.

OLIVE OIL IN CHEST DISEASE.

BY W. THORNTON PARKER,

Acting Assistant-Surgeon, U.S.A.

IN the *Philadelphia Medical Times* for July 15, 1882, is a very valuable communication from Dr. Frank Woodbury, "On the Rational Treatment of Pulmonary Consumption." In this article I notice the following passage: "In all forms of chronic bronchial disease, the use of inunctions of cocoanut oil, walnut oil, sweet oil, lard, or similar substances, will improve the nutrition, and relieve the congestion of the mucous lining of the air-passages." This statement I consider of practical importance to the profession, and I regret to say that I do not remember having seen this very desirable mode of treatment recommended in any of our medical journals before. While a student in the private clinic of Prof. Von Giett, at the General Hospital in Munich, in 1873, I learned from him the value of sweet oil (oleum olivæ) in *all* forms of chest trouble, acute and chronic. Olive oil is undoubtedly superior to all the other preparations which Dr. Woodbury has recommended for inunction.

Prof. Von Giett uses olive oil in the following manner. The patient's chest is first thoroughly bathed in the olive oil, slightly warmed; then a strip of clean, old, and soft shirting, large enough to envelop completely the whole chest, and saturated with the oil, is carefully adjusted. Another piece of dry cloth covers the first; over this can be placed cotton batting or flannel, but usually only the clothing of the patient. This is the only application made by Prof. Von Giett in diseases of the chest where *warmth* is indicated. The old-fashioned and dangerous Indian-meal jacket he strongly condemns. These inunctions of olive oil will be found excellent in all cases where artificial nutrition is sought for. This method of treatment is especially advisable in bronchitis, pleurisy, pneumonia, and pulmonary consumption.

NOTES OF HOSPITAL PRACTICE.

PENNSYLVANIA HOSPITAL.

SERVICE OF THOMAS G. MORTON, M.D., ONE OF THE ATTENDING SURGEONS TO THE HOSPITAL: CLINIC HELD DECEMBER 2, 1882.

GENTLEMEN,—I will bring before you, presently, a patient upon whom I shall perform a re-amputation at the hip-joint; but I shall first occupy your attention with some cases illustrating atrophy following joint-inflammation and cases of congenital and acquired talipes or club-foot, in order to demonstrate the principles of the treatment, as well as the results you may expect from the division of tendons and the application of the proper kind of mechanical apparatus.

CASES OF CLUB-FOOT ILLUSTRATING POINTS IN PATHOLOGY AND TREATMENT.

This young girl, aged 12 years, was operated upon at our last clinic. It was a marked case of congenital talipes equino-varus. The tendons divided were the tendo Achillis and the anterior and posterior tibials, after which the foot was thoroughly stretched, and then was placed in this right-angle splint, which has, as you will observe, a broad band which passes

over the instep to keep the heel down; the foot and limb were firmly bound to this splint by a roller band, but the toes were left uncovered, in order that the circulation might more readily be observed. The apparatus has been occasionally removed during the week.

You observe that the deformity is almost overcome: the remaining tendency to varus is so slight as scarcely to be noticeable.

You will remember the force I was obliged to exert after tenotomy in order to bring the foot into a good position by flexing, extending, and rotating the ankle; you heard the cracking noise as the parts successively yielded. I was able to accomplish this (the patient being etherized) by manual force alone, and was not obliged to resort to the mechanical stretcher, an instrument I devised many years ago for correcting deformities of the more obstinate forms as seen in adults. As I have already told you, club-foot, whether congenital or acquired, is essentially the result of nerve-lesions, a palsy, in fact, more or less extensive, involving certain groups of muscles, causing weakness or paralysis more or less marked, which may occur *in utero* as well as subsequently. The weaker muscles yield, and the stronger muscles cause the deformity. In all of these cases there is more or less atrophy. This you will find to be universally the case. I told you at my last lecture never to divide tendons in the infant foot, but to commence stretching the deformed foot at once after birth, and that with care all cases of varus could be cured by stretching alone and the use of a proper apparatus, and that the equinus, which is often associated with the varus, forming this deformity known as equino-varus, could often be overcome by stretching, and, if not, tenotomy of the tendo Achillis should not be attempted until the child was able to walk, when the ankle-motion would very materially, by constantly stretching the tendon after its division, aid in the cure.

This child I now show you is 4 months old: it presented at birth marked equino-varus. You will observe the result in the treatment by manipulation alone, and this I consider a great triumph. Notice how the mother grasps the foot, and can, by a little force, almost place the foot in the condition of calcaneo-valgus, so pliable has the joint become, while the equino-varus has completely disappeared. Observe also the difference in the development of the limbs,—the atrophy which I have referred to as always found in these deformities. The limb which is the subject of our treatment is decidedly smaller. The calf measures six and one-quarter inches, while the healthy limb at the same place is seven and one-quarter inches. The atrophy is seen also in the shortening of the limb and foot as compared with the sound side. A marked difference will continue through life. This atrophy can never be overcome by massage, electricity, or any other form of treatment.

This child has been wearing a very light brace, which aids in the treatment by keeping the foot in good position after it has been well stretched. The shoe has an improvement over the ordinary club-foot apparatus in this ankle-strap, which I devised some years ago, which keeps the heel down in the shoe. It is adjusted before the shoe is laced up.

The treatment of this case has been conducted by the mother, who has systematically stretched the foot until all deformity has vanished; and this has been brought about in the space of a little over two months. The infant should be kept under observation from time to time, and wear a light shoe with steel side-supports until all tendency to a recurrence has disappeared.

CLUB-FOOT FROM INFANTILE PALSY.

This next little girl is 6 years old. At the age of two years she had an attack of infantile palsy, one year after she had begun to walk. The atrophy from the palsy can be seen in the left leg, which is three-quarters of an inch shorter than the right, while the calf is five-eighths of an inch smaller than the sound one,—the difference being not only in circumference, but also in length of the limb. She has been under treatment for several months, and now walks pretty well; but you notice that in this child, as in all cases of infantile palsy, the patient will more or less drag the limb or throw it, because some of the muscles are more involved in the palsied state than others, and thus harmony of action is lost. The child has been treated by electricity, frictions, passive movements, and open-air exercise, and has greatly improved. The atrophy can be improved, but not overcome: the tendency to varus has nearly, if not entirely, disappeared.

ATROPHY OF MUSCLES FOLLOWING JOINT-AFFECTIONS.

This young man illustrates another variety of atrophy from a joint-affection. E. F., 21 years of age, walks upon crutches, owing to an acquired deformity of the left limb. You recall the statement I made to you some time since, that as a result of joint-inflammations we may have atrophy. It is well illustrated by this case. There is always more or less structural change, involving the nerve-filaments going to and around the articulation, when the joint is in a state of inflammation. These changes in the nerve-filaments extend along the smaller to the larger nerve-trunks, and on to the spinal cord, leading to localized changes in the gray matter, and sclerosis and atrophy follow, the effects of which are evident in the areas to which the nerves are distributed, which had been thus secondarily involved at their origin in the cord. Every case of hip-disease which you see will have more or less atrophy of limb afterwards. It is important that you should have your attention directed to this, in order that you may anticipate subsequent changes. This patient, at the age of 6 years, had hip-disease, for which he was treated for six months at the St. Joseph's Hospital. The joint became anchylosed, and gradual atrophy of the limb resulted. Upon comparing the lower extremities, we find the thighs at the middle measuring eighteen and fourteen inches respectively, and the calves thirteen and one-half and eleven inches. The left leg is shorter; but this may in many instances in hip-disease be due to changes in the joint itself; but the thigh and leg bones here are undoubtedly atrophied, and are much smaller than those of the right side.

Here is yet another case illustrating atrophy of limb from strumous disease of a knee-joint. This girl, Margaret K., 9 years old, sprained her knee when two years of age. An abscess followed, which discharged for four years. Anchylosis subsequently took place. When she applied to me at the Orthopædic Hospital, the knee-joint was flexed to a right angle. On the 5th of October last I broke up the adhesions and used for a time a straight splint. She then was ordered a high-heeled shoe. At that time there was two inches' difference in the measurement of the calves, that of the right limb measuring nine and one-half inches, that of the left only seven and one-half inches. She can now walk without difficulty.

These cases illustrating atrophy following joint-inflammation are exceedingly interesting and instructive, as are also the constant want of development seen after palsies, and the associated atrophy in cases of club-foot, whether congenital or acquired.

SECONDARY AMPUTATION AT THE HIP-JOINT IN A CASE OF OSTEO-MYELITIS IN THE STUMP, AFTER AMPUTATION AT THE MIDDLE OF THE THIGH.

In this hospital we have had an unusual number of amputations at the coxo-femoral articulation. I have personally performed here four of these amputations at the hip-joint,—three secondary and one primary. Of the secondary operations,—two males and a female,—all three were for osteo-myelitis of the femur in thigh-amputations, and extending from the cut surface of the bone upward towards the joint. The fourth case was an enchondroma of the thigh, where I made a primary operation: the patient died on the seventh day, of exhaustion. Each of the remaining cases has recovered without an untoward symptom. The relief to the system by removing the dead bone, which is a great source of irritation and causes prolonged suppuration, was very marked. Upon dissecting the stump after the amputations, a number of fistulous tracts were usually found running deeply by the side of the bone almost up to the joint itself.

Let me say a word with regard to the cases of hip-joint amputation operated upon in this amphitheatre. The first time the operation was performed here it was done by the late Prof. Joseph Pancoast, in June, 1860, upon a case of medullary sarcoma of the thigh: the patient recovered, and survived the operation over a year. The second case was one of railroad injury: the femur was exarticulated by Dr. Hewson in 1864, but the patient died a few hours later. The next case was also operated upon by Dr. Hewson, in 1865, for enchondroma; but it met with the same fate. The fourth was by Dr. Agnew, in 1866, in a case of necrosis of the femur, following gunshot wound; but death followed from hemorrhage on the twelfth day. The fifth case was by myself, in 1866: it was one of re-amputation in a case of osteo-myelitis following thigh-amputation. The patient

recovered. Dr. Hewson performed the sixth operation in 1873: it also was a re-amputation for malignant disease, which had returned in the stump after a thigh-amputation. The patient perished on the fourth day, from exhaustion. The next three cases conclude the series (Nos. 7, 8, and 9). The seventh and eighth (1877, 1878) were secondary for osteo-myelitis: they both recovered. The last (1879) was one of osteo-enchondroma, which died, as already stated.

Of the nine cases just reported, four were cured and five died. For other details of these cases I must refer you to "Surgery in the Pennsylvania Hospital," in which they are tabulated. The present patient is 41 years of age. He states that he sprained his ankle a year ago last October (1881). Following this, cellulitis occurred, which extended up the limb, eventually forming a large abscess in the thigh. This abscess never closed up, but led to necrosis of the femur, for which my colleague Dr. D. Hayes Agnew made an amputation at the middle of the thigh, but this wound has never closed. There was inflammation of the endosteum, extending up the bone and causing disease of the femur up to two and a half inches from the joint. There is also periosteal suppuration. He not only suffers by the constant discharge, but also suffers from pain. The only source of relief that can be offered is to get rid of the bone, which is enlarged and diseased within and without. There is no use in making a re-amputation higher up within a few inches of the joint, for the inflammatory action has doubtless by this time involved the ligamentum teres and cartilage of the head of the bone, which in these cases always sooner or later become diseased.

The immediate dangers of the operation are shock and loss of blood, and the subsequent dangers exhaustion, hemorrhage, and pyæmia. We may control the hemorrhage during operation by several means. We may use the abdominal tourniquet, which compresses the aorta and controls the circulation in this way. There is another method, by digital compression, first suggested by Dr. F. Woodbury while resident in this hospital. It is done by carrying the entire hand into the rectum and with the fingers compressing the common iliac vessels; or, if you cannot carry this out, a lever of wood may be introduced into the rectum and pressure made in a similar way: this has been used successfully in the London hospitals. In a case of re-amputation, however, we can save the patient from the risk of hemorrhage from the femoral artery, and obviate the necessity of all control of the circulation, by simply making a long anterior flap, which includes the principal vessel, or by a previous operation—as I have done—we can cut down and first tie the femoral artery. In this manner there is only the danger of hemorrhage from a few posterior vessels, which we will tie as we proceed. If we have a long anterior flap, as I propose to make, and a short posterior one, we will have the best drainage. [The patient was brought into the room under the influence of ether.—REP.]

When I grasp the bone at the end of this stump, the space between my thumb and forefinger is about five inches, showing a great increase of bone-tissue, and a probe is readily introduced on either side of the stump for a distance of two and a half to three inches. The hardness of the stump extends up at least six inches, involving the main portion of the bone. Above this there is very little remaining, and that is mostly made up of the great trochanter and the head and neck of the bone.

In making the long anterior flap, I cut down to the femur along the inner side of the thigh from the groin downward, and then around the end of the stump above the old cicatrix, so as not to divide the artery in making my flap. I then carry the incision to the outer side and up beyond the great trochanter. The next step is to separate the tissues from the femur, carrying the knife closely to and around the bone, in order to cut as few vessels as possible, carefully dissecting the tissues; then, opening the capsular ligament, the disarticulation is easily accomplished.

In these chronic cases we usually find a greater number of vessels than in a traumatic case, so that more hemorrhage must be expected; the smaller vessels become enlarged during the progress of the disease, and often become permanently patulous. You must remember that the inflammation which has existed here for a long time has so consolidated and glued the tissues together that it is with great difficulty sometimes that we can seize the vessels in order to tie them. We have now

succeeded in carrying out the principle we essayed at the beginning, and have not opened the femoral artery.

You have noticed that, although I have applied about twelve ligatures, they all control vessels smaller than the radial artery. The little oozing that remains will cease shortly after exposure to the air. The femur presents extensive disease of the bone, and also shows the lesions incident to osteomyelitis and necrosis.

I shall not be in any haste to close this stump, but will simply apply a carbolized dressing for a few hours, and, when all oozing has ceased, the flaps will be brought together with adhesive plaster, and covered with carbolized oil and supported by absorbent cotton-wool and a bandage.

[The case made an excellent recovery. The wound largely united by primary union, and the patient's health has improved since the amputation was performed.—REP.]

TRANSLATIONS.

A CASE OF EXTIRPATION OF THE GALL-BLADDER FOR CHRONIC GALL-STONES.—Langenbuch, of Berlin, taking the ground that the gall-bladder is the locality in which gall-stones are especially developed, concluded that in cases of cholelithiasis in which repeated attacks of colic and other symptoms confirm the diagnosis, the patient may be saved from further suffering and from the dangers of ulceration and fatal peritonitis by removing the gall-bladder, with its contents, with perfect safety, by laparotomy. This view is supported by physiology and morbid anatomy, which demonstrate the fact that the gall-bladder is not an organ essential to life, inasmuch as it is frequently absent after death, either being congenitally deficient or destroyed by disease without there having been any material or evident disturbance of the health of the individual. Moreover, it is normally absent in some of the higher animals, as in the horse and the elephant. As regards the operation for its removal, after repeatedly performing it on the dead body, he arrived at the conclusion that, *of all abdominal operations for which preliminary laparotomy is required, the extirpation of the gall-bladder, with preceding ligaturing of the cystic duct, is to be regarded as the least complicated.*

The operation is detailed as follows. A transverse incision through the right abdominal wall, corresponding with the anterior border of the liver, meeting another along the outer border of the rectus muscle, so as to form a T, both of them being about 10–15 cm. in length, will open the abdominal cavity in the most convenient manner. The gall-bladder is at once exposed, with the fundus presenting, under the lower surface of the liver. If the colon and small intestines are now pushed backward by introducing a large flat sponge, and the right lobe of the liver lifted upward, the hepato-duodenal ligament will spring into view from below, so that the anterior boundary of the foramen of Winslow can be taken between the fingers of the left hand. In this fold run the great gall-ducts, and towards the middle the portal vessels. In order to separate the cystic duct, which lies farthest to the right,—in fact, almost isolated,—it is advisable to separate the few peritoneal attachments to the gall-bladder, with the aid of a few small incisions. The bladder decreases in size until it terminates with some spiral turns in the duct, upon which a tightly-drawn silk ligature is now placed, from 1 to 2 cm. from the bladder. Since the success of the operation depends upon the permanent occlusion of the cystic duct, the catgut ligature for this purpose is absolutely excluded. Having done this, the peritoneal investment of the gall-bladder is slit up around its circumference, the connective tissue holding it in place carefully divided by the knife or scissors, and the gall-duct is then cut outside of the ligature. In case the gall-bladder is greatly distended, its size may be first reduced by the aspirator, in order to prevent its rupture, and the consequent flooding of the field of operation. It is necessary to bear in mind the vascularity of the liver-tissue, injury of which should be carefully avoided; otherwise in this operation there will scarcely be found a vessel large enough to require a ligature. With the closure of the abdominal wound the operation is concluded, in which, with the exception of a small portion of the colon, scarcely any of the intestines are exposed.

Having completed the study of the details and principles of the operation, it was not long before the author had an opportunity of carrying it into actual prac-

tice. A case of long-standing jaundice, enlarged gall-bladder, with occasional discharge of calculi, in a man 43 years of age, was seen in consultation in June, 1882. In spite of medical treatment, the affection, which commenced with an ordinary attack of biliary colic in 1866, had persisted; his general health had greatly suffered, and he became markedly emaciated. Attacks of pain were of frequent—indeed, almost daily—occurrence, and were so intense as to lead to fainting-spells on several occasions. Without detailing all the symptoms, it may be stated that the patient was in a decidedly precarious condition, nutrition was greatly impaired, pains were very severe, and there was great danger of the opium habit, so that the prognosis was very unfavorable. At the request of the patient, the above operation was performed July 15, in the manner prescribed, without any difficulty. Aseptic precautions were observed with unusual care. The gall-bladder was found in moderately distended condition: it contained two small stones. There was slight venous bleeding from the surface of the liver, which was checked by a stitch with a catgut ligature. After the operation the patient had no pain, and slept well the succeeding night. With the exception of a slight attack of dry pleurisy on the fourth day, which passed rapidly away, he had an uninterrupted recovery, and left his bed on the twelfth day, the wound having healed within a week after the operation. The results of the operation were very marked.

The old pains had, in November, not yet returned, nor had he had others. It was some time before the irritable, weak stomach was restored, but it had greatly improved. He had not taken morphia since the operation. The bodily weight increased so rapidly that in six weeks he had gained 7.5 kilos (about 19 pounds).

The author concludes that cholecystotomy is especially adapted to treatment of those cases in which the patience of the physician and that of the sufferer have reached their limit. It is a last resort, although it should not be too long delayed; it should be carried out only by a practised surgical hand, and conducted under the guarantee of the most rigid antisepsis. As it is the least dangerous of all laparotomies, it is in the special cases, as a matter of fact, to be preferred, in its actual though slight chance of life, to an existence given up to morphia and the innumerable possibilities of this most insidious malady.—*Berliner Klin. Wochenschrift*, November 27.

INVESTIGATIONS WITH REGARD TO THE MICROBE OF CONTAGIOUS PLEURO-PNEUMONIA IN ANIMALS.—Profs. Bruylants and Verriest have been for two years studying the contagium of the disease known as pleuro-pneumonia in cattle, and they claimed, in a preliminary communication upon the subject to the Royal Academy of Medicine of Belgium, in 1880, that they had verified the observations of Willems and Van Kempen as to the existence of an ovoid micrococcus in the fluids of the lung and superficial pustules, and that these, by inoculation, are capable of communicating the disease. As a result of a number of careful culture experiments, they further claimed to have isolated and artificially cultivated the special micrococcus in neutral fluids, and to have determined by experiment that the cultivated variety is not only exactly like the original, but is also capable of causing the disease after inoculation in cattle. This communication was made to the Academy, and, with the approval of that body, the experiments necessary to determine the value of the culture micrococci for preventive inoculation against this scourge were afterwards put in practice. A petition, endorsed by the Academy of Medicine, addressed to the government for aid in pursuing these scientific investigations, similar to those of Pasteur in France, was acceded to, and a subsidy granted. Unfortunately, a commission of control was also appointed, which succeeded in controlling the operations so completely that the commission finally resigned, nearly two years later, without doing any work whatever. The experiments were then undertaken at private expense by Profs. Bruylants and Verriest, who have published a pamphlet, entitled "Nos Rapports avec la Commission de Contrôle des Expériences relatives au Microbe de la Pleuro-Pneumonie contagieuse," in which the obstructive and masterly inactive course pursued by the commission is fully demonstrated. The authors state, with regard to the virus, that Dr. Willems and Prof. Van Kempen had observed, in 1852, in the liquid obtained by incision in a diseased lung, some special and very small corpuscles, apparently endowed with proper motion. Having con-

firmed this, and made successful culture experiments with these microbes, they declared their ability to obtain them in any quantity and in an absolutely pure state. Inoculations with this attenuated virus were successful. The numerous experiments made with these culture products were followed by the development of pustules presenting all the external characters of pustules obtained by direct inoculation. In the liquid obtained from incision into these pustules they proved the existence of the same corpuscles as those heretofore found in the diseased lung and in the ordinary pustules of direct inoculation. Finally, the culture of this liquid has yielded the same reproduction. They concluded (1) that these corpuscles are microbes or living organisms susceptible of multiplication, and (2) that they are the agents and active factors in the inoculation for contagious pleuro-pneumonia, and that the culture microbes are, at least from the point of view of immediate effect, the equivalents of the pulmonary lymph. The exact value of these inoculations as a preventive, and the various details of the problem, are now under investigation, and will require time for final solution.

THE HISTOLOGY OF INTESTINAL NEPHRITIS AND CONTRACTED KIDNEYS DUE TO CANTHARIDIN.—Aufrecht claims that he succeeded, by administering small doses of cantharidin by subcutaneous injection, in producing in animals all the forms of acute inflammation of the kidney,—to wit, the so-called acute parenchymatous nephritis, the diffuse parenchymatous interstitial nephritis, and the contracted kidney, the latter being characterized by irregular pin-head-sized puckerings of the cortex, into which the slightly diseased connective tissue of the capsule projected. In more advanced cases the kidneys became distinctly bosselated. This form of disease of the kidney, caused by these injections, he had obtained in twenty-five cases in the course of four months. It is developed usually by about .0025 gramme (gr. $\frac{1}{25}$) of cantharidin. The histological appearances of these kidneys agreed exactly with what is known as contracted kidney in man. The glomeruli and tubules were found greatly diminished in size and compressed; the first were deprived of epithelium, but otherwise showed scarcely any abnormality, only a slight granular or wrinkled appearance. The epithelium of the urinary tubules was reduced, their cell-contents had a more protoplasmic appearance, here and there cylinders (casts) were found in the canals. The capsules of the Malpighian bodies, and, to a more considerable degree, the interstitial connective of the tubules, especially of the diseased ones, were enlarged by swelling of the cells of the locality, to which was added swelling of the cells of the adventitia and of the muscular fibres of the smaller vessels. The author therefore concludes that an etiological and also a pathogenetic connection is proved as existing between parenchymatous nephritis and the contracted kidneys; and, indeed, it would appear scarcely possible that the representatives of the view that diffuse nephritis generally is initiated by an inflammatory affection of the interstitial tissue (as held by Klebs) or of the vessels (as claimed by Cohnheim), and that parenchymatous nephritis is not at all to be regarded as inflammation, can in the future retain this opinion; for they would be required first to demonstrate in any way—clinically, pathologically, anatomically, or experimentally—that in the liver or in the kidneys a diffuse interstitial inflammation can be developed without preceding inflammation of the parenchyma, which has never yet been accomplished.

PTOMAÏNES IN THE AMNIOTIC FLUID.—The existence of a ptomaïne has been demonstrated in the amniotic water. The fluid, obtained by puncturing the membranes during labor, was subjected to chemical examination by Mourson and Schlagdenhauffen, by whom the fact was reported recently to the Academy of Sciences at Paris. If the toxic character of this ptomaïne shall be established, it may serve to explain some cases of miscarriage which may be caused by its presence in abnormal quantity. [As ptomaïnes have been shown to exist in normal urine, possibly the source of the pseudo-alkaloid here may rest with the fœtus rather than with the mother.—TR.]—*La France Médicale*, No. 56.

DIGESTIBILITY OF COOKED MILK.—One of the results obtained in a series of experiments by M. Hoffmann on the digestibility of casein was that with artificial gastric juice the cooked milk yielded a greater quantity of peptone than fresh milk.—*Centralblatt für Med. Wissenschaft*, No. 42.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, DECEMBER 30, 1882.

EDITORIAL.

THE UNITED STATES PHARMACOPŒIA.

No. 2.

IN continuing the editorial task of commenting upon the new Pharmacopœia for the information of our readers as to its virtues, defects, and novelties, we to-day print in another column a list of the omissions. The first commentary to be made upon it is that there are several names which ought to be in it which are not there. What sufficient reason, for instance, can there be for the retention of poison-vine, *Rhus toxicondendron*, or of *Salix alba*, willow bark, or even of the beautiful dogwood? Still, the committee has done well to make the list as long as it is, if there be no improper droppings out. Commencing at the beginning and passing down the list, the first important name which attracts attention is Aconitia. Physicians who have been accustomed to use an ointment of this alkaloid in neuralgia and other complaints will be surprised at an omission which probably rests upon the fact that commercial aconitia—and, indeed, so-called chemically pure aconitia—is an uncertain substance, sometimes extremely powerful, sometimes very feeble. This does not, however, seem a sufficient excuse. Aconitia has no advantages, and many serious disadvantages, as an internal remedy, but its ointment as an external remedy has its own field of usefulness. It is the business of a Pharmacopœia to afford standard tests by which an apothecary can recognize the practical though not always the chemical purity of a drug, and not to dismiss such drug on account of the obscurity of its chemistry or the rascality or ignorance of manufacturers.

Passing down the list, Carbonic Acid Water should not, in our opinion, have been dismissed: it will continue to be just as useful, however, whether officinal or not,—which is a consolation that neither stupidity, carelessness, nor any other evil or good quality in a committee of revision can deprive us of. The Chloride of Barium and the Sulphate of Cadmium ought, perhaps, to have been retained; but we meet with no very decided cause of complaint until we come to Castoreum. This long rather than much used remedy would certainly have escaped destruction from any other than the most reckless iconoclasts; but it has had to go, probably because the committee was unwilling in any way to be *particeps criminis* in the extinction of that noble animal the American beaver. Good judgment seems again to assert itself, until we come to the Fluid Extract of Spigelia and Senna. Very many doctors will no doubt be incensed by the omission of Digitalinum, and possibly, out of respect to its considerable use, it should have been retained, although it is an uncertain preparation, never a pure principle,—a mixture of unknown quality,—and we are very well pleased that the committee have done what they could to send it to the limbo of the forgotten.

Are there no worms in Boston? Are the children of New York of such vicious nature that even the parasites flee from their inmost parts? For the action of the committee in regard to worm-medicine betrays the most extraordinary ignorance about vermifuges. The two most valuable officinal remedies for the round worm are dismissed. Fluid Extract of Spigelia and Senna will undoubtedly continue to be used; but the attempt to substitute Santoninate of Sodium for Santonin is fraught with danger. Santonin is very poisonous, and is very often given in poisonous doses. It is almost insoluble in the acid liquors

of the stomach, and when in crystals only dissolves slowly even in the alkaline intestinal juices. For this reason it is brought into continuous, thorough contact with the worm, and is absorbed to as little extent as possible. That children so often escape serious poisoning is undoubtedly due to the fact that much of the santonin passes through the intestines. Santoninate of sodium is as poisonous as santonin, and is very soluble. A minimum proportion of it reaches the ascaris, a maximum proportion is absorbed. The Infusions are not at present much used, and their omission is no loss, except that of the Compound Infusion of Gentian, a much used and valuable remedy, which will probably maintain itself, officinal or not officinal. Practitioners should remember that it is ordered to prepare non-officinal infusions by a general formula, and that in most of the more powerful infusions the strength is thereby greatly increased. Either write "U. S. 1870" after an infusion, or give the strength it is to be made in the prescription.

A very valuable remedy omitted without reason is the Oil of Camphor. Of less importance, but still worthy of retention, are the Compound Ointment and Tincture of Iodine.

NEW VIEWS UPON THE PROXIMATE CAUSE OF INFLAMMATION.

THERE are good reasons for believing that in the march of medical science suppuration will take its place, by the side of fermentation and putrefaction, as a process caused by micro-organisms, and originating in no other way. A recent writer* suggestively remarks that "it has not been shown that it is possible to make a drop of pus without the intervention of a microbe." The fact that irritation or injury alone is insufficient to induce the phenomena of inflammation is demonstrated daily in contused wounds, in which the skin remains unbroken. It has been claimed, also, that by the adoption of certain well-known precautionary measures it is possible for wounds occurring under the hands of the surgeon, even in operations as grave as amputations, to heal without the formation of pus. In pursuing this experimentally, Hueter† and De Rausche have shown that no inflammatory reaction follows deep cauterizations when the parts are covered again by healthy skin; moreover, when destruction of bone occurs by the thermo-cautery, that, in place of being thrown off by suppuration, the parts simply are reabsorbed if the necrosis remains aseptic. Even caustic injections similarly disappear in the most inoffensive manner.

It is acknowledged that in the immense majority of cases inflammation and suppuration are consecutive to various kinds of irritation; but it is so simply because these favor the access or the development of lower organisms. Most frequently they wound the epidermic investment which serves to protect the tissues from aerial germs; or the instruments of traumatism carry the living morbific agents deep into the tissues, attached to their surface. At other times it is the organisms circulating in the blood which enter into the field; moreover, in all these cases, the tissues, deprived of their vital resistance by the effect of the violence, seem no longer able to oppose successfully the invasion and development of the microbes. With this in mind, it seems that, instead of being the necessary result of mechanical, physical, or chemical irritations of the tissues, inflammation in such cases appears entirely accidentally. Since these irritations play the simple rôle of occasional causes in the development of the above morbid phenomena, Desnois observes that logic forces us to recognize the intervention of a factor which is foreign to these irritations; this factor is the microbe, which governs, according to its caprices, the issue of traumatism; and

* Desnois, Du Rôle des Organismes inférieures dans l'Inflammation et la Suppuration. Revue Médical, Louvain, November, 1882.

† For references see Desnois's communication.

he claims to have established that "neither true inflammation nor suppuration occurs in the economy, under any influence whatever, where the microscopic organisms cannot enter into play;" and, as a corollary, he asserts that "whenever inflammatory products or pus are examined, the presence of inferior organisms may be detected."

It is usually stated, after Cohnheim, that the essential phenomenon of inflammation is the diapedesis of leucocytes; but it has been declared by Hueter that this occurs only in the presence of monads, microbes of a globular form. These smaller forms invade, or are taken into the interior of, the white blood-cell, and produce the characteristic changes which are seen in the pus-corpuscles. The presence of such living organisms in pus-globules has been likewise affirmed by Hueter, Koch, and Birch-Hirschfeld. The contents of the chronic abscess appear to furnish an exception to this, for examination may reveal no microbes; but it is possible that the microzymes, having passed through their evolution, have become changed and no longer recognizable. Koch found, experimentally, in some cases, that around the borders of an inflammation the tissues were literally stuffed with the micrococcus, from which the fluid contents were entirely free; and Billroth has observed that these microbes are abundant in recent inflammatory collections, but further on in their progress may disappear entirely. The constant presence of a large number of cocci in the intestinal tract, and their frequent, if not constant, appearance in the circulation, will account for the presence of microbes and their derivatives in purulent internal collections, where there is no exposure to the air. The definition of inflammation, formulated by Hueter in his *Grundriss der Chirurgie*, though differing fundamentally from the classical definition adopted by surgeons generally, in the light of modern progress is certainly very suggestive. Inflammation, according to this eminent authority, may be considered in general as an epidemic at once miasmatic and contagious in its nature, which exerts its ravages over almost the entire surface of the earth,—that is to say, in every place where putrefaction is produced by inferior organisms, which, according to place and circumstance, modify its characters according to the quantity or the quality of the organisms present. By this it is not necessarily meant that the germs of putrefaction and those of inflammation and suppuration are essentially identical, but their laws of development are in some degree the same. What may be the special forms of microbes (if there be special forms) which are apt to create inflammatory or purulent foci, remains for further study.

The fact that such a theory of inflammation can be advanced is in itself significant: it is another instance in which the study of pathology has been stimulated by the new doctrines of the origin of disease, and shows that the germ-theory, so far from becoming obsolete, is becoming day by day more firmly established.

A FEW weeks since, we called the attention of our readers to some vile compounds which are described in the Homœopathic Pharmacopœia recently published by Boericke & Tafel, of this city,—the gonorrhine, leucorrhine, and other nasty filth put into the mouths of dupes by crack-brained practitioners of medicine. We did not, however, note one other fact, because we wanted to wait until a legal decision had stamped the fraud as fraud. The remaining portion of the Homœopathic Pharmacopœia was in great part stolen verbatim from the United States and National Dispensatories. After a very brief suit, the whole edition has been suppressed under the copyright laws. The publishers probably thought no educated regular physician would ever see their book, and that they would escape un-

whipped of justice; but was there ever a more telling proof of the impudent fraudulence of the assumptions of modern homœopathy than the fact that for the guidance of its votaries the leading business firm devoted to such specialty should provide stolen extracts from recognized standard scientific therapeutic treatises?

MANY years ago the writer of this paragraph was a resident physician in Pennsylvania Hospital. Fourth-of-July nights were in those days a surgical jubilee or orgy for the residents. Torn hands, lacerated fingers, gunshot wounds, burns, *et id hoc omne genus* abounded, and were usually left for their first treatment to the internes. On such a night the fire fed by the vapor of ether leaped from a candle through the air six feet to the freshly-saturated sponge applied to the mouth of a victim of minor fireworks, and in a moment sponge, insensible patient, bed-clothes, etc., were in a blaze. Fortunately, the fire was extinguished without serious injury; but the canaille, who flocked in with their wounded friends, spread far and wide the report that the young doctors were all drunk. So much of prelude to the information we vouchsafe our readers, that the editorial staff of the *Philadelphia Medical Times* was not under the influence of champagne when it wrote recently, "372,000 pounds of opium is equal to 3,000,000 of doses."

CORRESPONDENCE.

LONDON LETTER.

ALL your readers will learn with regret that Sir Thomas Watson has passed away. His charming lectures on the Practice of Physic are a part of medical education. They may not be quite abreast the requirements of the day, as the modern progress of medicine has been swift, and in the direction of the nervous system that progress has been immense. But there are a great many maladies that have been fairly understood for a long time, and on these Watson's book can be read with much profit and advantage. The writing is that of an accomplished scholar; the reasoning, clear and lucid. Sir Thomas was a graduate of Cambridge in 1825. Next year he was made a Fellow of the College of Physicians, and he served the offices of Councillor and Censor, each several times, till at last he was elected President of the College. He was first a lecturer on medicine at the Middlesex Hospital, but was induced to join King's College, where he became Professor of Medicine. His exquisite lectures were delivered with a master's grace of manner and felicitousness of expression. Then Sir Thomas was made a Fellow of the Royal Society, as befits the President of the College of Physicians, just as it does a Cabinet Minister. He was also made a physician-in-ordinary to Her Majesty; but whether he was ever in actual attendance upon the queen is doubtful. He was one, and no unimportant, link in the chain of medical baronets of whom the present generation knows something. There were Sir Everard Home, Sir Charles Scudamore, Sir Henry Holland, Sir James Alderson, Sir Thomas Watson, and now Sir William Jenner, last but not least. They form a string of names of which any profession may be justly proud. Most of these held the position of physician to the sovereign.

With Sir Thomas Watson passes away a phase of medical history which has seen very important advances. During his long history medicine has emerged from an empirical art into an acknowledged science. He was an M.D. before the knowledge of the discovery of the stethoscope by Laennec, and all that it involves, had taken root in England. The systematic study of the sounds produced by the various organs in health and disease was unborn when the late baronet was a Fellow of the Royal College of Physicians. He lived to see medicine employing instruments of precision in all directions; and an honorable life it was. No one ever dreamt of Sir Thomas as acting otherwise than as a polished gentleman with a nice sense of honor. For some years he had retired from practice, and only appeared before the public on special occasions. Yet he had not been forgotten even in the rush of modern times. The kindly, courteous old baronet could usually be seen on Sunday mornings, wending his way to and from his residence to the neighboring church in Vere Street; for he belonged to a class of physicians who do go to church, though the class is growing smaller.

If one well-known medical figure with the prefix of "Sir" has passed away, a new-made knight has been added to the list. Sir Oscar Clayton is a Fellow of the College of Surgeons of England of 1853. Beyond that he is Surgeon to the Prince of Wales and the Duke of Edinburgh, and was a surgeon of police, no one seems to know anything about him;

but he has some claims to such distinction, doubtless, and a handle to his name will carry with it a definite value in practice from a financial point of view, but perhaps not very much, if the fees on this side of the Atlantic are to be arranged on the thrifty scale adopted in remunerating the medical attendants of your late murdered President.

Uncle Sam has been decidedly near on this occasion. It has, however, always been understood that by attendance upon exalted personages the physician finds his reward not directly so much as indirectly in the increased clientèle of ordinary mortals which follows therefrom. For instance, the Duke of Edinburgh had a cold,—a simple, feverish cold,—and his medical attendant in the country (it would be cruel to name him) feels it incumbent to sit up all night with his illustrious patient, and is rewarded by seeing a paragraph in the newspapers calling the cold a "serious illness," which is soon followed by another, informing Her Majesty's liege that Sir Oscar Clayton had been down from London and had approved the treatment adopted. The movement for the reform of medical education is once more assuming an active condition, and if it is necessary to get a medical knight down from London to endorse the management of a common cold, it is certainly high time something was done. What constitutes a claim for knighthood is growing more mysterious every day. It is some comfort to the Edinburgh colleges (not the University, be it understood), which have been so seriously sat upon by the recent Commission, that they did not license either of these gentlemen who have figured before the public in connection with a simple cold. Whatever their shortcomings,—and the charge brought against them is only too well founded in many instances,—their licentiates can encounter a feverish cold without much mental perturbation. Perhaps North-Countrymen possess a robust mental physique and are not easily put out; but the Scotch corporations did certainly get some severe handling about men who failed to pass in London going North and returning with a qualification. Yet a feverish cold would probably not be beyond their capacities even in their imperfect training under the existing regulations. It is the habit to gird at the "one-horse" colleges in the boundless West, where earnest young fellows get a smattering of medicine, surgery, and obstetrics, so as at least to prove useful and less dangerous than completely unlettered ignorance, in out-of-the-way places where a full-course M.D. would not think it worth his while to locate: so it may be interesting to know what goes on in the old country.

Prof. Huxley put the following question to a well-known private tutor who prepares candidates for examination, and who therefore sees a good deal of the "lame-duck" kind of student: "Is it not a matter of fact that a vast number of young men, when they come to their medical studies, cannot write a decent letter, and have not a notion of English composition?" Mr. T. Cooke, a pleasant, bright little man, who had no motive to tell a lie, answered, "That is the case." Well, if such is the case,—and it seems impossible to doubt it,—what is the use of so many well-meaning people making an outcry about the School-Boards and the over-education of the children of humble parents? We do not seem to be in any particular danger of over-education as yet, for is not medicine ranked among the learned professions? Hitherto one was laboring under the impression that preliminary examinations had closed the portals of medicine upon all idle ne'er-do-wells since the year of grace 1858. Before that, a young man who had tired out his long-suffering kinsfolk, and found it necessary to talk about "doing something for a living," betook himself to medicine, and ground up his Latin in the scanty spare time of his student-life; and sometimes years elapsed in these spare hours, when he had no money for billiards or other amusements incompatible with absolute impecuniosity, before he successfully surmounted the preliminary ordeal. This creature, one imagined, was as extinct as the dodo; but Mr. Cooke's answer gives one a rude shock as to the possibility of some specimens remaining in our social museum, and of a modern representative, not quite so pronounced, being indeed far from rare.

Then Sampson Gamgee, of Birmingham, took up his parable, and testified against the unhallowed alliance of the College of Physicians of Edinburgh and the Faculty of Physicians and Surgeons of Glasgow,—the most offending combination: "We know very well the Scotch colleges give the easiest examination. If a man is plucked here he can go there, and, to use a student's expression, bring his ticket back with him." He had consulted the Medical Register to refresh his memory, in order that there might be no mistake about his facts. Further he went on: "It has a most demoralizing effect on the students." And it seems that the demoralizing effect is not altogether confined to the students; for Mr. Christopher Heath, one of the foremost surgeons of the day, who has both taught and examined, delivered himself as follows in illustration of what occurs:

"I may mention one which occurred two years ago. A man was plucked the third or fourth time, at the primary examination of the College of Surgeons, in anatomy and physiology. He afterwards, at my recommendation, went to Glasgow, and came back with a double qualification." Now, Mr. Heath is a man of irreproachable character; but what will a sick layman think if he reads such testimony? Can he think that the public, who are to place themselves in the hands of these qualified practitioners, are being fairly treated?

I am afraid such uncovering of the nakedness of our profession will bring forth a mingled crop from such mingled seed. The supporters of the movement for female medical practitioners will find here a weapon or two which can be furbished up to carry on the fight; for they are rather quieter than usual at present. It seems that a medical education does not eradicate all carnal weakness for matrimony in its cultivators, and some, having degenerated from matrimony further into motherhood, have been practically unfitted for the discharge of their professional duties from time to time. Such a result of higher education has been rather damping for the enthusiasts. Nevertheless, the belief in female capacity for physic is still burning brightly in some quarters, and it has been rumored that our gifted Postmaster-General, Mr. Fawcett, contemplates appointing a lady doctor to the post-office, where there are many lady officials. But the poor gentleman has been struck down by typhoid fever complicated with diphtheria, and we must wait till he sufficiently recovers to see what will be done. In the mean time, the bulletins about him are signed by Elizabeth Garrod-Anderson among others: so that anyhow he is setting an example for his male employés by being attended by a female practitioner. I had nearly written a practitioner of the inferior sex. Should it not now be "the superior sex"? The female is the equal of the male in all matters of life,—that is, all greater matters; and as the human male is not anatomically qualified for child-bearing or suckling, it seems questionable how far males are necessary in the scheme of creation, except purely for purposes of procreation. It seems that for this last purpose a limited number of males may be required. Polygamy was the condition of life suited to a sparse population, but polyandry with sexless workers (barren females) seems the arrangement shadowed out for a civilized and teeming population, in which the female is getting to the front in other directions as well as in the production of fiction.

There is only one other direction, apparently, in which female energy can strike out, and that is the Church. The mandate of Paul was set at naught by the Society of Friends and by the earlier Wesleyans, though female preaching has not been found acceptable to the bulk of the Christian Church. So, if a lady student of medicine fails, and there is no Scotch portal with an easy examination for her (as there is for the more fortunate male), she cannot take to the Church,—an alternative adopted by the male when convinced of his inability to enter the ranks of medicine,—but must fall back on domestic work or retail commerce. Surely theology is not a subject on which the female mind is indifferent; and I, for one, am certain that it must be quite as delightful to see a fair young curate, severely attired, visiting me and correcting my views about the Hebrew prophets, or expounding Revelation, as it is to see a shapely hand ungloved, and taper fingers feeling my tendinous radial artery, whose wall is hardened by commencing atheromatous change. It seems the lady doctor has been thought specially adapted for the harems of Mohammedans or the zenanas of the Hindoos; but even here her superiority has pet to be demonstrated, as the existing evidence is insufficient to establish it beyond question or cavil. Even when the native proprietor has become sufficiently "civilized" or "Europeanized" to permit of the experiment being tried, the prejudices of custom have been arrayed against the experiment.

Medicine, it seems, is once more having a chance at Oxford, where, under the chilling influence of theology of the most conservative character, it had all but died out. When the late Prof. Rolleston went to Oxford as Professor of Physiology, he was an enthusiast, as well as one of the foremost physiologists of the day. But his ardor died out under the unfavorable climate, and he became an ordinary respectable Oxford professional mediocrity. He died of Bright's disease some little time ago, and "the lost medical school," as Oxford has been designated commonly, is now to be revived by the appointment of J. Burdon Sanderson to the Waynflete Professorship of Physiology. The Oxford wet-blanket clique smothered George Rolleston's energies: it now remains for us to wait and watch if they can perform a like operation on Burdon Sanderson. He is not a promising object, it must be admitted; and if they do succeed, it will be a piece of intellectual Thuggism most interesting to all psychologists. Nor, with his aid, will a similar operation on Prof. Moseley (of "Challenger" repute), Rolleston's successor as Linacre Professor, be easily performed, as he has a good intellectual backbone.

J. MILNER FOTHERGILL.

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MEDICAL PRACTICE AMONG THE UTES.

UNITED STATES INDIAN SERVICE,
UINTAH VALLEY AGENCY, UTAH, November 29, 1882.

SIR,—I have thought that possibly some members of the medical profession would be interested in knowing something of the peculiarities of the Indian service, and this has occasioned me to review some of my notes, not with the hope of finding anything with which to instruct the profession, but merely to tell its members of some of the difficulties with which agency physicians have to contend,—to wit, "Indian medicine-men" and their practices. An Indian doctor is a man of influence in his tribe, and his services are sought on all occasions. He never forgets to charge, and the indebtedness is promptly

liquidated by the patient or his friends. In the Ute tribe, so far as I have observed, but little medicine is used, and most of the doctoring is done with bass-drums, notched sticks, and noisy incantations. Imagine the feelings of an agency physician, on visiting an Indian lodge, to find his patient, on whom he has enjoined perfect quiet, being pommelled and sung over by a half-dozen "medicine-men," and, after the performance is over, being told that the patient was much better because one of the doctors had found the "pain" in the shape of a little red stick of a finger's length, and had extracted it from the ear, thorax, or abdomen! Of course there are instances when a placebo, in the shape of an invocation to unseen powers by an Indian doctor, will have the desirable effect of "bread pills" and "sugar pellets" in higher walks of life; but, as a rule, the patient is not materially improved, and either dies or applies to the agency physician to do his share towards hastening recovery.

When a patient is abandoned by the "medicine-men," and his superstitions prevent his applying at the agency for treatment, his case, if seriously ill, is a pitiable one. As an example of this, I was called one night to go eight miles to see an Indian who I was told was very sick. Upon inquiry, I learned that he had been suffering five days from retention of urine. I went to his lodge, and was there asked to accompany an Indian, who directed me to a lone tree about a quarter of a mile from any habitation, and there, to my surprise, I found my patient in the top of a tree, on a bed of willows, laid out to die if no relief came. After some deliberation as to whether it was better to die a natural death or take the chances of being killed by me, he consented to my passing a catheter and evacuating a bladder which had been distended to such an extent as to reach above the umbilicus. I have imagined, from the broad grin which overspreads his countenance whenever he meets me, that this Indian possessed a little of the gratitude with which the "noble red man" is credited; but I am still in doubt. For almost two weeks after my first visit, his bladder seemed to be in an atonic condition, probably the result of over-distention, and he was unable to empty it without assistance: so a catheter was used twice daily. About the close of the first week I was called away, and requested one of the agency employés to use the catheter and relieve my patient during my absence; but immediately upon my return the Indian informed me that if I was ever to be absent again he would prefer operating on himself. I gave him a little instruction and furnished him with an instrument, which he used as long as was necessary. But there is hope for the Indian, and I am firmly convinced that the agency physician will ultimately triumph over the native "medicine-man." The Indians at this agency at least are throwing aside many of their superstitions, as is proved by the fact that I held, during the present month, probably the only post-mortem examination ever made on a Ute Indian, for even the friends of the "enlightened" chieftain Ouray would not allow a post-mortem to be held. The case in question was one of acute alcoholism, which I recorded, not because it was the only case of drunkenness during the month, but because it resulted in death, and was of interest from the fact that the Indians allowed me to make a post-mortem examination and have the body buried in a coffin, which is entirely contrary to their creed. Whiskey, post-mortems, and coffins might all be termed evidences of civilization, but the consent of the Indians in this case is a marked evidence of their improvement, for their prejudices and superstitions would have rendered such a proceeding impossible a few years since, and these superstitions are among the strongest relics of barbarism to which they cling. Less than fifteen years ago the Ute Indians, upon the death of a prominent member of the tribe, were in the habit of killing the wife or servant of the deceased, to accompany him, erect his lodge, cook his victuals, and saddle his horse, if such things were necessary, in the land whither he had gone; and now they seldom fail to kill horses, burn lodges, and destroy property whenever a death occurs. Probably one of the greatest drawbacks and objections to the erection of hospitals at Indian agencies is the fact that after a single death had occurred in the building it would be difficult or impossible to secure any further patients. In the case above referred to, all these practices were omitted; I believe not a single horse was killed; and this Indian, according to the superstitions of his people, is doomed to eternal pedestrianism in that "happy hunting-ground."

F. S. BASCOM,
Agency Physician.

NOTES FROM SPECIAL CORRESPONDENTS.

MICROSCOPY AMONG THE CINCINNATI MEDICAL STUDENTS.—The last few years have developed quite an increased demand for microscopical teaching in our colleges. Although the methods of making microscopical research have long been taught in the Ohio Medical College, it has only been within the last four years—since the laboratory has been under the charge of Dr. F. Kebler—that any considerable proportion of the students have pursued the course. Since that time, however, the number has been steadily increasing, and the addition of a pathological laboratory, under the direct charge of Dr. E. W. Walker,

has given a fresh impetus to the study. This year more than one hundred and fifty students have taken these courses. At the Miami Medical College, Prof. Joseph Eichberg has lately opened a laboratory for microscopical work. He informs me that his classes manifest great interest in the work, and that this year one-third of the college matriculates are taking the course. As this study is wholly optional, the large number of students pursuing it indicates a greatly-increased desire for a thorough knowledge of the groundwork of medicine.

The colleges, as a whole, are not quite so well attended this year as last, but the students are doing more satisfactory work than they have ever done before.

Some of our most prominent physicians have started a private laboratory, in which they are studying germs and their causative relation to disease. They are doing a great deal of quiet work, the results of which they will doubtless give to the profession at no distant day.

ALCOHOL AS A SPECIFIC FOR SCARLATINA.—At the last meeting of the Academy of Medicine of Cincinnati, Dr. Giles Mitchell reported forty-three consecutive cases of scarlatina treated with large doses of alcohol, without a single death. The quantity of alcohol given in some cases was enormous. To a patient two years old a half-ounce of whiskey was given every hour for a number of days, without having any other than a favorable effect, and without producing any symptoms of alcoholic intoxication. The doctor claimed that when this treatment was instituted, the disease had always pursued a more favorable course, hyperpyrexia being neither so frequent nor so prolonged, nor were renal complications so likely to ensue. In case the kidneys became affected, the alcohol was still pushed, and the complication fully relieved. If the temperature was high before the administration of the remedy, it would rapidly fall below the danger-line after the treatment was instituted. The report of Dr. Mitchell called forth a lengthy discussion from the members of the Academy. Prof. Whittaker thought that the favorable influence exerted by the remedy was due to its antimycotic properties. He had no doubt that the brilliant results obtained were due to the antiseptic and parasiticidal properties of alcohol, as manifested in these cases by the destruction of the germ of scarlatina. Prof. Reamy was a firm believer in the efficacy of large doses of alcohol. He attributed its good effects rather to its influence in preventing tissue-metamorphosis, to its value as a food, and to its antipyretic action.

SMALLPOX.—Smallpox is gradually subsiding, there being less than two dozen cases now in Cincinnati. The City Councils are trying to abolish the Board of Health, as, they claim, its work has been very inefficient. Two saloon-keepers, two druggists, and one politician at present constitute the active membership of the Board.

THE SOCIETY OF THE EX-INTERNES OF THE CINCINNATI HOSPITAL will convene in that city on the 28th of this month.

PROCEEDINGS OF SOCIETIES.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

A CONVERSATIONAL meeting of the Society was held at the hall of the Society, November 15, 1882.

CASES OF NASAL AND PALATAL DISEASE.

Dr. Carl Seiler exhibited, first, a case of congenital cleft palate, in which there existed two large posterior hypertrophies springing from the posterior portion of the lower turbinated bone on either side, obstructing the posterior nares and making nasal respiration difficult. One of these growths had been removed with the Jarvis wire snare, while the other was still *in situ*. He exhibited the case because, on account of the cleft palate, the inspection of the naso-pharyngeal cavity was very easy, and the hypertrophies, which are so often found to give rise to the symptoms of nasal catarrh, were beautifully shown.

The second case exhibited was one of syphilitic ulceration of the hard palate and of the nose. In his remarks on the case, he stated that the treatment had consisted in scraping the roughened palatine bone with the burr of the dental engine, and then by daily packing the ulcer with iodoform. Under this treatment, together with the iodide of mercury given internally, the ulcer had diminished, and was progressing towards cure in a remarkably short time.

CASES OF MILD CONTINUED FEVER.

Dr. James C. Wilson called attention to the prevalence of a mild form of continued fever, of which many cases had fallen under his observation this autumn. Similar cases are, however, frequently observed at all seasons of the year, but they are not in all cases understood, confusion arising in consequence of the misuse of the term "typho-malarial" as applied to certain not well-characterized fevers, and in consequence also of the wide departure separating cases of this kind from the typical forms of the fever with which they are nosologically related.

To illustrate the matter at hand more fully, Dr. Wilson related two cases. The first case, a lady, æt. 35, was first seen at his office on the 4th day of September. This person had spent the month of July at various places of summer resort, but the month of August at

her own home in West Philadelphia. She had been in good health until about the end of August, when she had suddenly a distinct chill, not severe, followed by prolonged severe headache, but not by subjective symptoms of high fever, nor by sweating. Similar seizures of chill, followed by headache, occurred daily for four days, though not at the same hour. When seen, she was languid and evidently sick. Temperature, 102° at 4 P.M. The attack was looked upon as an intermittent of blurred type, and a mercurial purgative was prescribed, to be followed by large doses of quinia, along with gelseminum. When again seen at her home, four days later, she was no better. Temperature, 102.2°, headaches more severe, bowels constipated and only moderately acted upon by the purgative. From this time the patient continued to present the same symptoms, the chills becoming less and less distinct and more irregular, until in the course of ten days they ceased altogether. As soon as systematic temperature-records could be kept, the nature of the sickness became apparent, despite the absence of bleeding at the nose, diarrhœa, enfeeblement of the first sound of the heart, tympany, or rose spots. It was a mild attack of enteric fever. (The temperature chart was exhibited.) Under the so-called specific treatment, the case progressed favorably, its whole duration being about six weeks, the convalescence being delayed by crural phlebitis of the left side, which developed in the course of the fourth week and must be regarded as of diagnostic importance. Although this case presented the clinical characters of an irregular quotidian ague, its progress and the graphic record of the course of the febrile movement showed clearly that it was neither intermittent nor remittent fever. Furthermore, the husband of this patient had died of enteric fever, in the room occupied by the patient, eighteen months before. The probability of infection after a long period of time from disease-germs retaining their vitality in some favorable situation in the house is, in this case, very great. This case belongs to the group of cases to which the misleading term "typho-malarial" is commonly applied. If this term is used under the delusion that it designates a class of fevers distinct from those due to marsh miasmata on the one hand and those due to the specific cause of enteric fever on the other, it becomes at once the source of much danger, because such cases are usually atypical cases of enteric fever, and if not recognized the patient may suffer serious ill in consequence of the neglect of dietary precautions and the like, and his friends may suffer later on by reason of an improper disposition of the stools.

The second case, a lad 15 years old, passed the three summer months in the mountains of Pennsylvania, in a non-malarious place. September 9, the day before his return, he had a chill, which was followed by great headache, peevishness, but no sweating. Dr. Wilson saw him a week later: he had suffered from nearly continuous headache, with a daily slight chill, not followed by perspiration, and recurring at irregular intervals. The boy was not very sick: there was no delirium, dry tongue, tympany, or diarrhœa,—on the contrary, constipation existed. Throughout the case the temperature did not exceed 102°, and commonly attained only 101.5° in the evening: it did not, however, fall to normal until four weeks had elapsed. After a few days the chills ceased, and only in the fourth week, about the time of the defervescence, did sweating take place, and then at night, and of moderate amount. In this case, which lacked every other character usually met with in typical enteric fever, the characteristic rose spots were found upon the chest and between the shoulder-blades.

Careful inquiry developed the fact that at the place where the boy had been four or five mild cases and one fatal attack of "fever" had occurred during the season; that the previous season some cases of similar character had occurred, and that the place had been free from sickness until three years ago, when a patient already affected with enteric fever was brought there and died. No malarial element could be derived from this locality, and the case reported by Dr. Wilson was not typho-malarial, but mild typhoid or enteric fever, the chills being in all probability an irregular result of the action of the typhoid poison.

The study of these and similar cases is important, because, as already pointed out, they constitute an obscure form of an infectious disease, on the proper recognition of which may depend not only the safety of the patient, but the protection of the surroundings from dangerous unrecognized infection. Further, it must be noted that we cannot describe these cases as typho-malarial, whether we interpret that term as meaning a combination of typhoid and malarial fevers, or as malarial fever of low (typhoid) type, In fact, this term typho-malarial is a bad one, and should be abandoned. If the cases detailed in this connection were not typhoid fever, then they were instances of fever of a form for which there is at present no nosological place.

DISCUSSION ON MILD CONTINUED FEVER.

Dr. Mills said he had seen a number of cases which corresponded closely to the description Dr. Wilson had given; and, although it was true that typhoid fever might vary, he did not feel satisfied that they were typhoid-fever cases. A patient has just left his hands whose clinical history agreed closely with that of one of Dr. Wilson's cases; but it was a third attack of the disease. The patient had chills, followed by fever, sometimes high, sometimes low. The attack lasted three or

four weeks. He thought the etiological argument adduced by Dr. Wilson not of much force. He wished to know if any records exist of fatal results in these cases due to errors of diet or intercurrent conditions. He regarded the cases as malarial rather than typhoid; but the inquiry was of much importance.

Dr. Eskridge said that the cases were of a kind of which most practitioners saw a great many instances. Continued fever varied much from typhoid. He had seen from time to time cases of a kind of fever which in his notes he was accustomed to call "cerebral typhoid." A case of this character had recently been presented at St. Mary's Hospital. The patient had suffered from an intermittent fever for about a week before coming to the hospital. The day after his admission, delirium occurred, followed by unconsciousness; the pupils were equal, and no paralysis appeared, but the condition became rapidly worse, and soon presented every sign of impending death; but the following day he became rational, the temperature fell, and great improvement took place. He is now at work, and feels well, but still has fever, although he was sick one week before coming to and three weeks in the hospital, and three weeks more have elapsed since he left the institution, making seven weeks in all. At first no sweating occurred, but at present night-sweats exist, and a slight febrile rise, without head-symptoms, occurs. Other varieties of cases he had seen, in which congestion of the lungs, followed by slight and gradually increasing solidification, took place, this solidification not disappearing until the fever terminated. Congestions also occurred in other organs. The variety that he called cerebral he had noticed in persons who, not accustomed to out-door exercise, had taken a summer vacation in the country or at the seashore and had been exposed to the sun.

Dr. Arthur V. Meigs remarked that Dr. Murchison, in his classical work upon the continued fevers of Great Britain, says that the differential diagnosis between typhoid, or, as he names it, pythogenic, fever and remittent malarial fever is one which it is sometimes impossible to make, and, further, that in India it is only of late years that typhoid fever has been recognized at all, owing to the prevalence in that country of remittent fever, with which it was confounded. The patients whose histories Dr. Wilson narrated had almost certainly both suffered with typhoid fever, this being almost proved in one case at least by the occurrence of crural phlebitis, which is a well-known and not uncommon complication of the later stages of typhoid, but must be rare in malarial fevers. The irregularity of the fever in the cases under discussion would be most easily explained—and it is a rule of logic that, other things being equal, the simplest and most natural explanation of any doubtful matter must be accepted as the correct one—by the existence of a malarial complication. This malarial element is a well-known and common complication of the disease, and has given rise to a special name,—typho-malarial,—which, by the way, is a very bad one, for it means in its true signification a malarial fever of a typhoid type, which the disease is not, being merely the occurrence of typhoid fever in a person having the miasmatic poison existing in the system at the same time. He detailed the history of a patient who was in the Pennsylvania Hospital during the past summer, when a diagnosis could not be made with certainty until, about the fourteenth day, the occurrence of intestinal hemorrhage established the existence of typhoid fever, and next day, for the first time, the characteristic rash made its appearance. The irregular type of the disease in the case was evidently due to the miasmatic poisoning with which the history of the patient showed him to be suffering. In another case, the patient, having a clear history of malarial disease, had only a few days before his admission to the hospital come from a distance, being exposed all the way to many hardships, and after his admission the disease assumed much more the appearance of remittent than of typhoid fever. Before death, however, which occurred about a week after his coming into the hospital, a probable diagnosis of typhoid fever was made, although many of the symptoms were wanting. A post-mortem examination showed extensive ulcerations of the patches of Peyer, a much enlarged and deeply-pigmented spleen, and the bronze pigmented liver, which is characteristic of severe miasmatic poisoning. There was a curious deficiency in this case, probably congenital: the left lobe of the liver was wanting. The most satisfactory and easy view of Dr. Wilson's cases was to regard them as having been typhoid fever, probably with a malarial element existing explaining the irregularity of the type of the disease. This latter was not absolutely necessarily the case, for typhoid fever may be irregular in type and yet uncomplicated.

Dr. Mills desired to say that he thought that no doubt could arise as to the typhoid character of Dr. Wilson's second case; but as to his own cases he had great doubt. These cases had presented chills alternating with fever, no diarrhœa,—bowels, in fact, rather constipated,—and no rash. They yielded to a line of treatment and diet not suited for typhoid. He did not accept the supposition of association of malarial and typhoid fever in the same patient. It was unlikely that two definite forms of infection should develop at one time. The periodicity of these fevers was supposed to indicate malarial impression, but might be accounted for by the fact that purely cerebral trouble was liable to periodicity. Dr. Eskridge's case, which early

presented head-symptoms, was *apropos* to this point.

Dr. L. Turnbull had a few weeks ago been called to see a young lady, æt. 18, whose case had been ushered in with intense headache, slight chilliness but no distinct chill, pulse 140, and high temperature (104°), but no rose spots, iliac tenderness, sudamina, or albuminous urine. She had just returned from Mount Airy, near Chestnut Hill. Upon inquiry, he learned that the gardener employed at the house adjoining the one that she lived in had died of typhoid fever. The young lady's disease was at first thought to be malarial, but quinine did no good. As soon, however, as he began with port wine and supportive measures, the temperature went down, the nocturnal delirium vanished, and she began to improve. He felt satisfied that the case was one of typhoid fever, although rather remarkable in its clinical history.

Dr. Wilson, in closing the discussion, said he had recently met with a case of death from peritonitis in a lad whose family had taken possession of a house which had been vacant for some years. An exceedingly foul well in the yard had been cleaned after the house was occupied. About twelve days before Dr. Wilson had been called in, the lad had become listless and indifferent, but had continued his school-duties for some time. Headache developed, and finally he was seized with a sharp pain in the abdomen, produced by the peritonitis, of which he died.

The eruption of typhoid fever is often absent even from those parts of the body in which it is most likely to occur: in as high as twelve per cent. of the cases it is said to be missing. It is true that irritative fever may run on indefinitely and be attended by periodicity, and that certain subacute forms of cerebral disease may show periodicity. As to typical remittent fever, such as was common in this city thirty years ago, it is rare. He had never seen any cases except those brought from shipboard. He recognized that typhoid fever is often complicated by malaria, thus acquiring periodicity; but here and there a case shows a periodicity which belongs to enteric fever itself. The lad spoken of in his opening remarks had no malaria: he had not been in a malarial region. He had detailed the cases to show that typhoid fever could exist without any of the characteristic symptoms being presented. If this is not the case,—that is, if such cases are not examples of atypical typhoid,—then a fever exists which is still unclassified and unnamed. The cases were assuredly not catarrhal fever, nor intermittent or remittent fever, nor simple continued fever. They were undoubtedly typhoid or enteric fever.

RARE FORMS OF ANEURISM IN THE CAROTID ARTERY.

Dr. Charles S. Turnbull exhibited two cases illustrating rare forms of traumatic aneurism of branches of the carotid artery.

Case I. was a *pulsating exophthalmus* of the left eye, due to *aneurism of the ophthalmic branch of the internal carotid.* By extension, the ophthalmic, from its anastomosis with the angular, and this, in turn, from its anastomosis with the external maxillary, had become dilated. In these vessels the aneurismal thrill could be felt as far as the infraorbital notch. Firm pressure on the *common carotid* of the same side *controlled the pulsation, but did not affect the exophthalmus:* so that an aneurism about the region of the *cavernous sinus* was suspected, as also some venous intercommunication.

The case had been under his observation for more than eight years, and, beyond the disfigurement and annoying "pulsating tinnitus," no change had taken place either in the exophthalmic eye or the health of the individual. Vision was unimpaired, and in the dark (especially when walking or making any exertion) pulsating coruscations were blinding and interfered with locomotion. Compression of the left common carotid afforded intense relief, but, when removed, the shock was absolutely painful, and the column of blood invariably "lifted the patient to her feet." Some ten years ago, while in the act of assuming the upright posture, after stooping, patient received a blow "on the orbital region" from the open door of a cupboard. The blow was scarcely noticed at the time, but after retiring, about five hours later, and having taken her first nap, she awakened with the pulsating noise, which has continued incessantly ever since. With the stethoscope the noises can be heard anywhere over the cranium, and with the otoscope in the meatus auditorius the noises are loudest, and can be likened to those of a "tug-boat" under full steam. She is 52 years of age, is the mother of eight children, and is a remarkably strong and healthy woman. Ligation of the left common carotid—a dangerous procedure in this case—is the only measure recommended for absolute relief, and the use of digitalis and bromide of potassium, with rest, the only palliative means of any avail. By pressure of the dilated angular artery, the lachrymal duct of the side has been mechanically closed, and this "stillicidium" adds another complication to the already oppressed globe. With the ophthalmoscope venous engorgement is pronounced.

Case II.—Traumatic aneurism of the temporal and anterior auricular arteries, supposed to have been caused by the point of a scalpel, as used about six months ago in incising a furuncle of the auditory meatus.—A healthy Irishwoman, æt. 55 years, came complaining of a pulsating noise in the right ear, which she said had annoyed her "since the operation was done upon her ear." With the stethoscope the "tug-boat" noise could be

heard over the ear and the temporal region of the side, and with the otoscope in the auditory meatus the sounds were quite as loud as those heard in Case I., and equally annoying. Compression of the *external carotid* at the angle of the inferior maxilla completely controlled the pulsations. In both cases the pulsating noises (aneurismal thrill) were so loud that hearing was seriously impaired, and special arterial compression in both cases completely restored the hearing. Ligation of the external carotid was proposed as the quickest and most satisfactory method of treatment.

In Case I. there was an *indefinite* history of trauma, but in Case II. the operation upon the meatus was no doubt to blame, and, as a point in aural surgery bearing upon the treatment of furuncle, serves as a valuable hint to those who would recommend the free use of the knife. Dry heat locally and the liberal use of anodynes are to be preferred to the knife.

DISCUSSION ON ANEURISM.

Prof. Henry H. Smith expressed himself much interested in Dr. Turnbull's cases. The diagnosis was clear, and the history of the first case frankly detailed. The treatment of the second case was not a matter of difficulty or uncertainty. In the first case, however, ligation of the carotid, with the intention of relying upon the vertebral arteries for the brain-supply, would probably lead to a fatal result. The progress of the case will be slow, and, when the hemorrhage occurs spontaneously, it may not prove fatal. The destruction of the eye and caries of the orbit will probably ensue on the growth of the tumor.

Dr. J. B. Roberts, referring to the second case, said he had examined it only a few moments ago, but he would prefer attempting digital compression, or a clamp fixed around the back of the neck, before resorting to the ligation suggested by Dr. Turnbull. Dr. Turnbull had probably rejected these methods for good reasons derived from more extended study of the case. It might be noted that the patient herself could easily use digital compression. However, ligation of the external carotid at this point was not a very risky operation.

Dr. Risley agreed with Dr. Roberts as to the treatment by digital compression. In the spring of 1881 he saw, in the interior of the State, a young lady who had extreme exophthalmus from a tumor of the orbit. She had consulted a surgeon, who examined the tumor with an exploring needle, but Dr. Risley did not learn what diagnosis was made. On examining carefully, he detected the aneurismal thrill and bruit, her physician, Dr. M. L. Herr, who was present at the time, confirming the observation. Arrangements were made to see the young lady in the city, but before leaving her he made pressure on the carotid, during which the thrill was suspended, but the occurrence of faintness made him desist. Some time afterwards she came to the city, but he then could detect no thrill. Dr. Agnew was called in consultation, and, after a careful exploration, a tumor about the size of a hazelnut was found situated far back, lying between the superior and internal rectus muscles. No fluid escaped. Dr. Risley concluded that the pressure he had used on the first occasion had been sufficient to form a clot in the sac, and he stated to the patient that the exophthalmus would probably diminish. A year afterwards he learned that the eye had retreated to its original position, but that the cure was ascribed to various herbs which had been used by an old woman who had been consulted by the young lady.

Dr. L. Turnbull said that in March, 1874, he read before this Society a paper on *tinnitus aurium*, and in that he detailed a case similar to the rare and interesting ones shown by his son. The patient was a male, and upon examination he had found the aneurismal thrill. He had stated in the paper that in many of the cases the calibre of the artery was diminished, a sort of stenosis occurring; sometimes a true aneurism existed. The vessels affected were generally external. We can feel the increased impulse by putting the fingers in the ear. *Tinnitus aurium* is often attributed to heart-trouble, and the patient becomes much alarmed. The condition can be relieved in various ways. So also any interference in the vertebral, or, still nearer, the internal auditory artery, changes the flow of blood to the labyrinth, and hence the vascular supply of the internal ear must also be affected. The intra-labyrinthine fluid is thus impressed, and this may and does often give rise to palpable noises which are synchronous with the diastole of the heart and may be heard with great distinctness.

Dr. Turnbull had recommended the use of compression in the second case shown by Dr. Charles Turnbull this evening.

Dr. C. S. Turnbull said, in reply to the various remarks, that in the second case he had to choose between two methods of treatment,—*i.e.*, compression and ligation of external carotid,—and he had adopted ligation as the quicker and simpler plan. He would not depend upon mechanical compression. It was difficult on account of location, and he was somewhat afraid that clots might be allowed to get through by accident. He had controlled many forms of *pulsating tinnitus*, as accompanying aural disease, by compression of the common carotid, but he had seen such bad effects therefrom, several patients having fainted, that he had become afraid of the practice and had resolved to resort to it with extreme caution. He, however, proposed, in the second case, attempting compression by some sort of mechanical appliance, and promised to report the results.

REVIEWS AND BOOK NOTICES.

THE DISEASES OF THE LIVER. By GEORGE HARLEY, M.D. P. Blakiston, Son & Co., Philadelphia. [By arrangement, simultaneous with the London edition.]

This is one of the freshest, most readable, and most instructive medical works that have been laid upon our table during the present decade. As the odor of fish hangs forever about the person of a battered, shrivelled-up Cape Cod veteran, so in the personality that stares at us from every page of Dr. Harley's book prominently comes forward the peculiar reek of the physiological laboratory. Dr. Harley is a clinician who has seen very much of what he writes, but first he was a practical physiologist and learned to use his eyes and brains,—a lesson the pure clinician rarely acquires thoroughly.

Part of the charm of the book is no doubt in the style of the author, which in the present case is equivalent to saying, is in the author. Where the Harley pedigree reaches, we, of course, know not; but assuredly some old Berserker swooping from his Northern eyrie left his permanent impression in some fair Saxon maid, or perhaps settled for life upon shores hospitable because he made them so. The robber nation of the modern world is undoubtedly the English. As they smote the French at Crecy and Agincourt, so ever since, by fair means or foul, have they been smashing, crushing, appropriating, drinking, and breeding, until the world belongs to them and their offspring. An Englishman of Englishmen would Dr. Harley seem to be. His champagne, he tells us, is A 1. Much has he to say as to what wine people suffering from liver-disease should drink. Never does it seem to occur to him that it is possible to exist without alcoholic imbibition. Herein he fulfils the definition which has been given of an Englishman by a well-known physiologist, as "a man who is always drinking something out of a bottle;" but Dr. Harley does not put his trust in zoedone, or ginger-pop, or other futile compound with which the temperance Englishman fulfils his destiny.

Then, when he is reasoning about a subject, how with mighty sweeps of a broadaxe hews he his way to the centre of the matter! Most of that which is said is very good, but now and then a most attractive *non-sequitur* is thrust forward. Whether writing sense or nonsense, however, the author rages and dogmatizes with a power that must sweep the ordinary reader along with him. There is no conscious egotism, but an immense courage of opinion and a practical belief in his own infallibility, which, of course, would be denied by Dr. Harley, but which the reader will everywhere perceive.

The good things of the volume we dismiss summarily with the statement that we know of no medical monograph which it will pay the practitioner better to buy. Some of the shortcomings we will point out briefly. Thus, when discussing the effects of tea and coffee, Dr. Harley falls into the astonishing but common error of asserting that their active principle is one, thein or caffein. We have known just such an assertion brought forward by a very well known therapeutist as an argument against the physiological school of therapeutics. "Two things," says this apostle of the old therapeutics, "which the scientist affirms are one; and yet how differently they act!" In truth, coffee depends for its activity chiefly upon empyreumatic oil, which during the roasting is developed from caffein, but has different physiological powers. Another instance of Dr. Harley's *non-sequiturs* may be found on page 322, where he cites an anecdote as showing that the toxic agent of certain poisons is not connected with their odoriferous principles. A Dr. M—— has a peculiar idiosyncrasy towards prussic acid, so that he is made ill by the emanations from a tightly-corked bottle in a closely-closed cupboard. The oil of mirbane smells so exactly like prussic acid that Dr. M—— cannot distinguish between them, but he is not made ill by the oil of mirbane,—"proof," says Dr. Harley, "that the toxic property of prussic acid does not exist in its odoriferous principle"! Proof of no such thing; proof only that two things which the nose cannot distinguish between may be essentially different. The nose cannot distinguish between a brick and a diamond, therefore the diamond is a brick. Nevertheless, we doubt whether the loyalty of Mrs. Dr. H. to her spouse would lead her to wear a brick in her brooch at the queen's reception.

A serious error arising from the same logical fault occurs in the discussion of the nature of fever. Dr. Harley brings forth almost as a new fact the notorious circumstance that in some cases there is a post-mortem rise of temperature, and asserts that this proves that the nervous system has no direct influence upon the production of fever. Of course it proves no such thing. It proves only that certain chemical changes or processes set up during life may continue after death. Modern research shows that it is the withdrawal of the inhibitory power of nerve-influence which causes fever. Death certainly withdraws nerve-influence; but fever usually subsides because the chemical movements of the protoplasm cease. If a putrefactive fermentation has commenced before death, it may continue after the cessation of circulation. The theory put forward by Dr. Harley, that the rise of temperature is due to the heat produced directly by the rapid development of the disease-germs,—produced, in other words, by the germs themselves,—is sufficiently comical for a Punch and Judy show.

In conclusion, we commend again most

heartily Dr. Harley's extremely valuable book, whose faults are so closely connected with and so completely overwhelmed by its virtues.

GLEANINGS FROM EXCHANGES.

A NEW THEORY AS TO THE PATHOGENY OF RHEUMATISM.—In an article entitled "Rheumarthritis, Carditis, and Chorea, with a New Theory of their Unity of Origin," Dr. W. Stewart, of Barnsley (*British Medical Journal* for November 11), broaches an ingenious theory with regard to the causation of these associated affections, that agrees apparently with many of the clinical features which have been hitherto unexplained. The central idea in his hypothesis is that the lesions termed rheumatic are due to a primary disorder of the blood or of its constituents, and that this offending agent is a white blood-cell in a pathological condition due to partial devitalization, somewhat analogous to tuberculosis and pyæmia, which he regards as merely greater degrees of devitalization of these cells. The most prolific source for these rheumatic leucocytes is in the tonsils, which are frequently observed to be inflamed prior to the appearance of the other symptoms. Either class of phenomena—arthritic, cardiac, or nervous—may precede the others, or occur independently of them; that is, it is not necessary that the joint-inflammation shall precede the cardiac disorder, or that the latter shall precede the chorea. A number of clinical cases are quoted illustrating the occurrence of these phenomena after preliminary sore throat. There is a species of tonsillitis which is supposed to be typical of this form of disease, and it so closely resembles diphtheritic sore throat as to be often mistaken for the latter: indeed, it probably furnishes the cases of diphtheria that are cured in three or four days. Like diphtheria also, it may be caused by sewer-gas poisoning. The following are the prominent diagnostic features of this sore throat: onset sudden, with shivering, malaise, and prostration; on the next day pretty high fever and sore throat; several spots of yellowish exudation may be found upon one swollen tonsil, and the next day the other tonsil will present a similar appearance, but is generally less severe in its course. This is a follicular exudation, and not a diphtheritic false membrane; the spots rarely become confluent, and usually clear away about the fourth day, when defervescence is complete and convalescence begins. The grave cases may be further distinguished from diphtheria by the entire absence of enlarged glands behind the angle of the jaw. The subsequent history of the affection will confirm the diagnosis. In very mild cases the throat-symptoms may be so slight as to be overlooked by the patient. The exudation under the microscope presents the characteristic features of leucocytes, but not of true pus-cells. The devitalized cells from the inflamed tonsils are carried off by the blood, and produce local troubles in joints, heart, or brain. The multiple thrombosis of chorea may be caused entirely by these leucocytes occluding the finer vessels in the corpora striata and adjacent motor region. In this manner arterial and capillary repletion is caused, and subacute inflammation may result. Defective nutrition and impaired function follow this condition.

The relation of the cell to rheumatism is merely that of an exciting cause. A chill of the surface affects principally the capillaries of the fibrous tissues surrounding the joints, because here there is a nearly total absence of that subcutaneous fat which acts as a non-conductor of heat over the other parts of the body. The cold produces contraction of these capillaries, thus establishing a condition which favors the blocking of their calibre by the altered blood-corpuscle. Fright similarly causes contraction of the cerebral capillaries. The following is a *résumé* of the views upon the subject as presented by Dr. Stewart. 1. Follicular tonsillitis, by the process of a mild inflammation, originates the discharge of altered white blood-corpuscles, through the follicular openings on the tonsils. 2. These, or others in the tonsils not extruded, are reabsorbed into the blood by the lymphatic vessels through the glands at the angle of the jaw. 3. By the initial inflammation, the white blood-corpuscles are deprived, to a certain extent, of their normal physiological qualities; and to the same extent as they have been devitalized they acquire pathological properties, by virtue of which they have an intensified tendency to adhere to the inner walls of the capillaries and to one another, and also to pass through the capillary walls into the connective tissues, and there form deposits. 4. They in this way become pathogenetic cells, and produce disordered nutrition and perverted functions in those organs in which they are interrupted or extruded, and thus establish the phenomena of disease. 5. These devitalized cells are revitalizable, and therefore the diseases which they produce, as a rule, terminate in recovery. He claims that this theory explains the altered blood condition observed in these affections (which is established by repeated absorption of cells or by the individual cells communicating to other cells they meet in the blood the same impress which they have already received); it accords with the apparent origin of rheumarthritis from damp and cold, and of chorea from fright, by according to them the power only of acting as exciting causes; it does away with the necessity of a causal connection between any members of the group; and, finally, it explains, in a rational and probable manner, the known clinical connection between, and the morbid anatomical condi-

tions existing in, the various diseases of the group.

CONGENITAL RHEUMATIC FEVER IN AN INFANT SUCCESSFULLY TREATED WITH SALICYLATE OF SODIUM.—The following remarkable case is contributed by Dr. Pocock to the *Lancet* (November 11). During an attack of acute rheumatism a woman gave birth to an eight months' child, which she was unable to nurse on account of her condition. Twelve hours after its birth the child cried so much that the doctor was sent for, who found it feverish (temperature 103.5°), the moist skin having an acid odor, and the right shoulder and elbow were reddened, swollen, and evidently very tender on motion. Salicylate of sodium, in four-grain doses, given in sweetened water every two hours until six were taken, was administered until the pains seemed less; then only every four hours. However, as the restlessness returned, and the temperature rose to 104°, the remedy was now given every two hours for four doses more, and then the interval increased to three hours. By this time (about forty hours from birth and twenty-eight from commencement of treatment) the temperature had fallen to 101° and the pulse to 140. The interval between the doses was gradually increased until they were given only three times a day. When about one hundred and eighty grains had been taken, and the child was nine or ten days old, the drug was stopped for twenty-four hours, but afterwards resumed irregularly, two or three doses daily, for a fortnight. The temperature was down to normal on the eighth day, and did not again rise. Cod-liver oil inunctions were subsequently used, and occasionally a little mercury and chalk. No nervous or cardiac symptoms were observed. The case is thought to be unique: it certainly is calculated to inspire the profession with more confidence in the salicylate of sodium treatment for acute articular rheumatism.

THE HYPNOTIC VALUE OF TANNATE OF CANNABIN.—Dr. Fronmüller, of Fürth, has been investigating the properties of a preparation of Indian hemp, the tannate of cannabin, which he obtained from Merck of Darmstadt. The tannate of cannabin is a yellowish-brown powder, insoluble in water or ether, slightly soluble in alcohol, and easily dissolved in water made slightly alkaline. It has a taste like tannin, and a not unpleasant smell. In the distillation of Indian hemp, two volatile oils are developed, cannabin oil and its hydrate. These are rapidly-acting irritant poisons. They are said to be removed in the preparation of the tannate. Dr. Fronmüller states that he has used Indian hemp itself for thirty years, and that there has been a steady increase in the strength of the preparations furnished him. Thus, thirty years ago he began with a dose of eight grains, ten years later he had to reduce it to four, and latterly to two grains. The dose of the present preparation, the tannate, ranges between gr. ii and gr. x, the most frequent dose being gr. v. The drug was used fifty-seven times in hospital and six times in private practice. The patients consisted of twenty-one men and forty-two women, for the most part between 20 and 40 years. Forty of them were suffering from phthisis; the remainder had different diseases, generally of a chronic nature. The common symptom in all cases was insomnia, and it was for its hypnotic effect that the cannabin was given. Good results were obtained in thirty-seven cases out of the sixty-three, and moderately good results in fifteen cases. It was called a good result when quiet and uninterrupted sleep came on within an hour after taking the medicine, the patient awakening with no toxic after-effects. In twelve cases no result was produced. Many of the patients had been taking opium. From the sixty-three trials thus reported, Dr. Fronmüller concludes that cannabin tannicum is a very useful hypnotic, powerful without being dangerous, and one which does not disturb the secretion or leave unpleasant toxic after-effects, if given in proper dose.—*Memorabilien*, July 21, 1882; *Practitioner*.

SUCCESSFUL NEPHRECTOMY.—Lawson Tait, in a woman 24 years of age, suffering with pyo-nephritis, made an exploratory laparotomy, but found the intestines so matted together over the diseased right kidney that the operation had to be abandoned. The left kidney, however, was ascertained to be unaffected. After recovery from the exploratory incision, which speedily followed, she left the hospital temporarily improved. She returned, however, about fifteen months later, in wretched health, with purulent urine, and all the former symptoms, for the purpose of having the kidney removed. A transverse incision was made along the curvature of the ribs, about four inches long, cutting carefully down to the fat, which was very abundant. The kidney was removed by the fingers, and its pedicle tied with a silk ligature, which, with another which had been needed for a vein, was cut off short. The peritoneum was accidentally opened, and a portion of the liver exposed. A large drainage-tube was inserted, and the wound then closed. The tube was withdrawn on the sixth day, and the patient made a good recovery: she is now in perfect health, and her urine normal. No carbolic acid or other of the so-called disinfectants were used in the operation.

ETHYL BROMIDE INTERNALLY FOR SPASMODIC COUGH.—Dr. William Squire recommends a solution of bromic ether in water (1 to 200) for administration in whooping-cough, as well as for angina and spasmodic pain. It may be given in the same manner as the aqua chloroformi of the British Pharmacopœia.

MISCELLANY.

DEATH OF JOHN FORSYTH MEIGS, M.D.—On December 16, at his residence in Philadelphia, Dr. John Forsyth Meigs died, after a short illness, of pleuro-pneumonia, the result of a recent cold. He was in the sixty-fifth year of his age. He was graduated from the University of Pennsylvania in the class of 1838, and subsequently filled the position of resident, and afterwards of attending, physician to the Pennsylvania Hospital. He served in the latter capacity from 1859 to 1882, when he resigned, in order to be succeeded by his son, Dr. Arthur V. Meigs. He early entered upon medical teaching, and was connected with the once celebrated Chant Street Summer School of Medicine, known as the Association for Medical Instruction. Subsequently he lectured regularly at the Pennsylvania Hospital during his term of service. An occasional contributor to the medical journals, or to the transactions of the College of Physicians, of which he was an honored member, his principal work is that in conjunction with Dr. Pepper on Diseases of Children, which has passed through seven editions, and is universally looked upon as a standard work of reference upon this subject. Dr. Meigs was modest, large-hearted, always courteous and considerate in his intercourse with his colleagues, and especially with the younger members of the profession, and kind and sympathizing with his patients. He enjoyed to an unusual degree the confidence of the community, and had a very large consulting practice, representing, as he did, a type of family physician which in former years did very much to establish the honor and dignity of the medical profession, one totally at variance with the sordid and business-like spirit manifested by so many at the present day: hence he acquired great influence over his families, and commanded universal respect, as he won universal regard.

The fact that Dr. Meigs studied at the University of Pennsylvania, although his father, Prof. Chas. D. Meigs, was an honored Professor in Jefferson College, has excited some remark; but the explanation is simply that Prof. Meigs did not become a member of the faculty at the latter school until the time of reorganization, in 1841. It is evident that it was at that time too late to affect the college course of his son, graduated three years before.

A CASE OF SUCCESSFUL NERVE-STRETCHING FOR SCIATICA.—Dr. Randolph Winslow reported the following case to the Clinical Society of Maryland, and presented the patient for examination. A. R., 52 years of age, employed in a machine-shop, was attacked by severe sciatica last January. Deriving no permanent relief from medical treatment, including electricity, hypodermic injections, and blisters, he became bedridden, emaciated, and helpless, the pains becoming worse from day to day. On August 11 an anæsthetic was given, and the nerve exposed in the middle of the thigh: it was then pulled from its bed, the nerve within its sheath, so as to elongate it considerably, the limb being lifted from the bed by the force used. The wound was cleaned, and a drainage-tube inserted; it was then brought together with silver wire, and dressed with a pad of oakum. The next day the pain had notably diminished, and in five days the wound had healed, except at the point left open for drainage. In two weeks he had so far recovered that he was able to get out of bed, and to execute all the ordinary movements of the leg which was straight. He was entirely free from pain, except an occasional dart in the perineal nerve. His foot felt numb. Three months after the operation his improvement continues. He has no pain, sleeps well, has good appetite, and considers himself well enough to go to work. He had walked five miles with scarcely any fatigue or discomfort, but thinks he tires more readily in the limb which was the seat of the disease. The operator, in considering the point selected for operation, says that there is a small space just below the glutæus maximus in the upper third of the thigh, where the nerve is only covered by integument and fascia. Lower down, but still above the popliteal space, it may also be exposed after it passes the long head of the biceps; and this he considers the place of election, as the nerve here is only covered by skin and fascia, and is easily exposed by drawing apart the biceps and semitendinosus. The operation does not involve danger from hemorrhage, as it is sufficiently above the popliteal space.—*Maryland Medical Journal.*

THE JAPANESE GOVERNMENT has imposed a tax of ten per cent. upon all manufactured drugs, to take the place of the druggists' license. In several provinces, indignation meetings have been held and petitions made requesting the repeal of the obnoxious act.

UNITED STATES PHARMACOPŒIA.

DISMISSALS.

Acetum.
" Destillatum.
Achillea.
Acidum Oxalicum.
" Phosphoricum Glaciale.
" Valerianicum.
Aconitia.
Aconiti Folia.
Alcohol (sp. gr. 0.835).
" Amylicum.
Aloe Barbadensis.
" Capensis.
Alumen.
Ammonii Chloridum.
Angustura.
Antimonii Oxysulphuretum.
Apocynum Androsæmifolium.
Aqua Acidi Carbolici.
" Carbonici.
Aralia Nudicaulis.
" Spinosa.
Argentum.
Arsenicum.
Asarum.
Asclepias Incarnata.
" Syriaca.
Avenæ Farina.
Barii Carbonas.
" Chloridum.

Berberis.
Bismuthum.
Cadmii Sulphas.
Cadmium.
Caffea.
Canella.
Canna.
Carota.
Carthamus.
Cassia Marilandica.
Castoreum.
Cataria.
Ceratum Resinæ Compositum.
" Saponis.
" Zinci Carbonatis.
Cinchona Pallida.
Confectio Aromatica.
" Aurantii Corticis.
" Opii.
Conii Folia.
Coptis.
Cornus Circinata.
" Sericea.
Cotula.
Creta.
Cupri Subacetas.
Cuprum.
" Ammoniatum.
Curcuma.
Decoctum Chimaphilæ.
" Cinchonæ Flavæ.
" " Rubræ.
" Cornus Floridæ.
" Dulcamaræ.
" Hæmatoxyli.
" Hordei.
" Quercus Albæ.
" Senegæ.
" Uvæ Ursi.
Delphinium.
Digitalinum.
Diospyros.
Dracontium.
Elaterium.
Emplastrum Aconiti.
" Antimonii.
Erigeron.
" Canadense.
Euphorbia Corollata.
" Ipecacuanha.
Extractum Arnicæ.
" Belladonnæ.
" Cannabis Americanæ.
" Conii.
" " Alcoholicum.
" Dulcamaræ.
" Erigerontis Canadensis Fluidum.
" Helleþori.
" Hyoscyami.
" Ignatiæ.
" Jalapæ.
" Senegæ.
" Spigeliæ et Sennæ Fluidum.
Extractum Stramonii Foliorum.
" Valerianæ.
Fermentum.
Ferri Ferrocyanidum.
" Subcarbonas.
" Sulphuretum.
Frasera.
Gentiana Catesbæi.
Geum.
Gillenia.
Glyceritum Acidi Carbolici.
" " Gallici.
" " Tannici.
" Picis Liquidæ.
" Sodii Boratis.
Granati Fructus Cortex.
Helianthemum.
Helleborus.
Hepatica.
Heuchera.
Hordeum.
Hyoscyami Semen.
Infusum Angusturæ.
" Anthemidis.
" Buchu.
" Calumbæ.
" Capsici.
" Caryophylli.
" Cascarillæ.
" Catechu Compositum.
" Cinchonæ Flavæ.
" " Rubræ.
" Eupatorii.
" Gentianæ Compositum.
" Humuli.
" Juniperi.
" Krameriæ.
" Lini Compositum.
" Pareiræ.
" Picis Liquidæ.
" Quassiæ.
" Rhei.
" Rosæ Compositum.
" Salviæ.
" Sennæ.
" Serpentariæ.
" Spigeliæ.
" Tabaci.
" Taraxaci.
" Valerianæ.
" Zingiberis.
Iris Florentina.
Juniperus Virginianus.
Lini Farina.
Linimentum Aconiti.
Liquor Barii Chloridi.
" Calcii Chloridi.
" Morphiæ Sulphatis.
" Potassii Permanganatis.
Liriodendron.
Lycopus.
Maranta.
Marmor.
Mel Sodii Boratis.
Monarda.
Mucuna.
Nectandra.
Oleum Camphoræ.
" Monardæ.
" Origani.
" Succini.
" Tabaci.
Os.
Ovum.
Panax.
Papaver.
Petroselinum.
Pilulæ Quiniæ Sulphatis.
Pilulæ Scillæ Compositæ.
Pilulæ Saponis Compositæ.
Polygala Rubella.
Potassii Carbonas.
" " Impura.
Pulveres Effervescentes.
Pulvis Aloes et Canellæ.
Quercus Tinctoria.
Ranunculus.
Rubia.
Ruta.
Sabadilla.
Sabbatia.
Sago.
Sesamum.
Simaruba.
Solidago.
Spiræa.
Statice.
Succus Conii.
" Taraxaci.
Suppositoria Acidi Carbolici.
" " Tannici.
" Aloes.
Suppositoria Assafœtidæ.
" Belladonnæ.
" Morphiæ.
" Opii.
" Plumbi.
" Plumbi et Opii.
Syrupus Fuscus.
Tapioca.
Testa.
" Præparata.
Tinctura Castorei.
" Hellebori.
" Iodinii Composita.
" Jalapæ.
" Lupulinæ.
" Opii Acetata.
" Rhei et Sennæ.
Tormentilla.
Triosteum.
Trochisci Santonini.
Unguentum Antimonii.
" Cantharidis.
" Creasoti.
" Hydrargyri Iodidi Rubri.
" Iodinii Compositum.
" Sulphuris Iodidi.
" Tabaci.
Uva Passa.
Veratrum Album.
Vinum Portense.
" Tabaci.
" Xericum.
Viola.
Xanthorrhiza.
Zinci Oxidum Venale.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM DECEMBER 9 TO DECEMBER 23, 1882.

ALDEN, CHARLES H., MAJOR AND SURGEON.—Now in St. Paul, Minn., to proceed to Fort Yates, D.T., and report to the commanding officer of that post for duty. Paragraph 3, S. O. 212, Department of Dakota, December 14, 1882.

BROWN, JUSTUS M., MAJOR AND SURGEON.—Granted leave of absence for fifteen days. S. O. 119, Department of the South, December 11, 1882.

BANISTER, J. M., ASSISTANT-SURGEON.—To proceed to camp on White River, Colorado, and to report to the commanding officer. Paragraph 7, S. O. 250, Department of the Missouri, December 11, 1882.

HALL, W. R., ASSISTANT-SURGEON.—Granted leave of absence for one month. Paragraph 8, S. O. 250, Department of the Missouri, December 11, 1882.

MADDOX, T. F. C., ASSISTANT-SURGEON.—To report to the commanding officer, Fort Clark, Texas, for duty. S. O. 138, Department of Texas, December 16, 1882.

PORTER, J. Y., CAPTAIN AND ASSISTANT-SURGEON.—To proceed to St. Francis Barracks, St. Augustine, Fla., and to report to the commanding officer of that post for temporary duty. Paragraph 2, S. O. 119, Department of the South, December 11, 1882.

WYETH, M. C., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Granted one month's leave of absence. Paragraph 4, S. O. 206, Department of Dakota, December 8, 1882.